STATE OF CALIFORNIA
The Resources Agency

Department of Water Resources

BULLETIN No. 130-69

HYDROLOGIC DATA: 1969

Volume I: NORTH COASTAL AREA

JANUARY 1971

NORMAN B. LIVERMORE, JR.
Secretary for Resources
The Resources Agency

RONALD REAGAN
Governor
State of California

WILLIAM R. GIANELLI
Director
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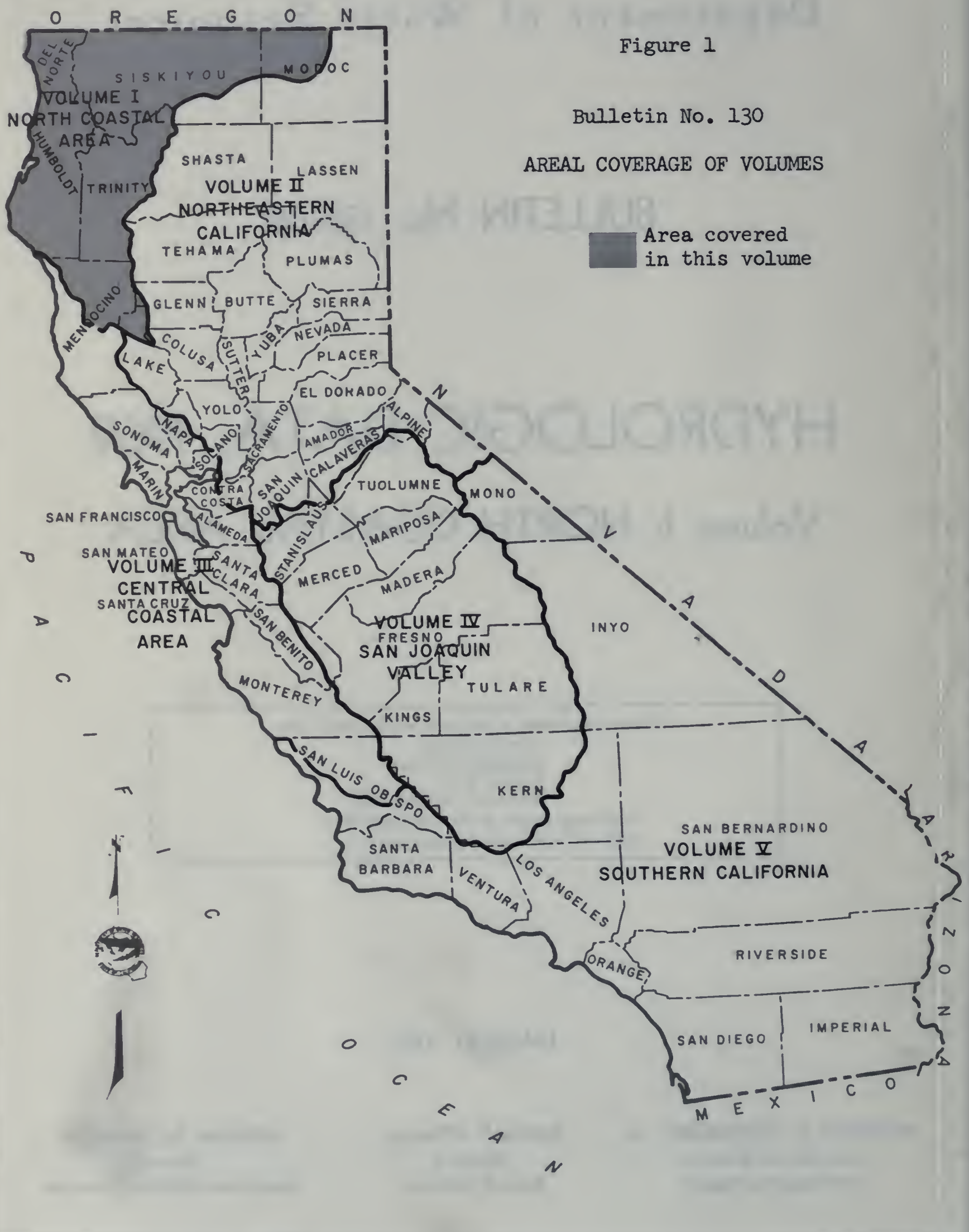
Figure 1

Bulletin No. 130

AREAL COVERAGE OF VOLUMES

Area covered in this volume



FOREWORD

The hydrologic data programs of the Department of Water Resources supplement the data collection activities of other agencies and help satisfy needs of these agencies for data on the quality and quantity of water in the State. Bulletin No. 130-69 presents accurate, comprehensive, and timely hydrologic data which are prerequisites for effective planning, design, construction, and operation of water facilities.

The Bulletin No. 130 series is published annually in five volumes. Each volume presents hydrologic data for one of five reporting areas of the State. These areas are delineated on the map on the opposite page.

William R. Gianelli

William R. Gianelli, Director
Department of Water Resources
The Resources Agency
State of California
November 19, 1970

METRIC CONVERSION TABLE

ENGLISH UNIT		EQUIVALENT METRIC UNIT
Inch (in.)	2.54	Centimeters
Foot (ft.)	0.3048	Meter
Mile (mi.)	1.609	Kilometers
Acre	0.405	Hectare
Square mile (sq. mi.)	2.590	Square kilometer
U. S. gallon (gal.)	3.785	Liters
Acre-foot (acre-ft.)	1,233.5	Cubic meters
U. S. gallon per minute (gpm)	0.0631	Liter per second
Cubic feet per second (cfs)	1.7	Cubic meters per minute
Part per million (ppm)		Milligram per liter (mg/l)
Part per billion (ppb)		Microgram per liter (ug/l)
Part per trillion (ppt)		Nanogram per liter (ng/l)
Equivalent per million (epm)		Milliequivalent per liter (me/l)
Degrees Fahrenheit (°F)		Degrees Celsius or Degrees Centigrade (°C) = (°F - 32°) 5/9

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DEPARTMENT OF WATER RESOURCES

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Reviewed and coordinated by
Division of Resources Development
Environmental Quality Branch
Water Resources Evaluation Section

ABSTRACT

The report contains tables showing data on climate, surface water flow, ground water levels, and surface and ground water quality in the North Coastal area during the 1968-69 water year. Figures show the location of climatological stations, surface water measurement stations, surface water sampling stations, and ground water basins.

ACKNOWLEDGMENTS

In the preparation of this report, valuable assistance and contributions were received from several public agencies and many private cooperators. The cooperation of the U. S. Weather Bureau and the U. S. Geological Survey was particularly helpful and is gratefully appreciated.

A special note of thanks is extended to the many loyal and dedicated weather observers whose unselfish efforts have contributed immeasurably to our knowledge of historical weather conditions in the North Coastal area.

APPENDIX A

CLIMATOLOGICAL DATA

INTRODUCTION

This appendix summarizes monthly precipitation, temperature, wind movement, and evaporation data for the North Coastal area from July 1, 1968, to September 30, 1969. Storage gage data are reported as annual precipitation. The appendix contains all weather data collected by cooperating agencies and local observers at 118 stations, with the exception of the observed air temperature data. The temperature data will no longer be published in this report.

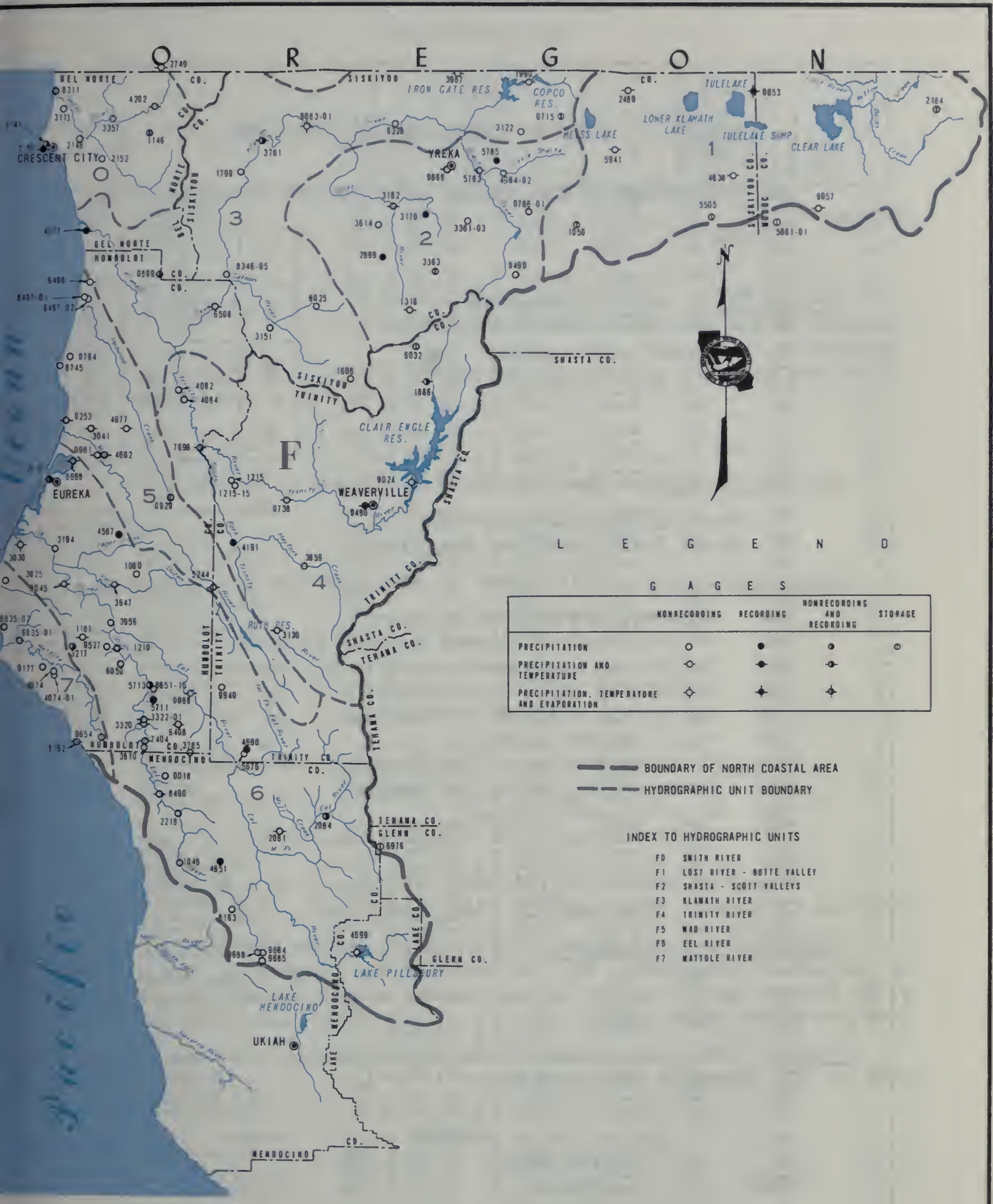
Daily climatologic data, including temperatures, together with local conditions and qualifying remarks, are available in the files of the Department of Water Resources.

To insure accuracy, stations are normally inspected either semi-annually or annually to see that the equipment is properly maintained and that observations are generally taken in accordance with U. S. Weather Bureau standards.

Each station in this appendix has been assigned an identification number. The letter and first digit denote the drainage basin as shown below. The remaining digits denote the alphabetical sequence of the station.

North Coastal Area

F0 - Smith River
F1 - Lost River-Butte Valley
F2 - Shasta-Scott Valleys
F3 - Klamath River
F4 - Trinity River
F5 - Mad River
F6 - Eel River
F7 - Mattole River



CLIMATOLOGICAL OBSERVATION STATIONS

TABLE A-1 INDEX OF CLIMATOLOGICAL STATIONS

An explanation of the column headings and the code symbols follows:

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

40-Acre Tract - This denotes the location of the station within the section in which it is located. The letter code is derived from the diagram to the right.

Base and Meridian - The code for this column is as follows:

H - Humboldt Base and Meridian
M - Mount Diablo Base and Meridian

Cooperator Number - This number is assigned from the following list:

006 Northwestern Pacific Railroad
007 California-Oregon Power Company (COPCO)
804 California Department of Parks and Recreation
808 California Division of Forestry
809 California Division of Highways
900 U. S. Weather Bureau
901 Corps of Engineers, San Francisco District
903 Corps of Engineers, Sacramento
905 U. S. Forest Service
907 State Climatologist & Unpublished (USWB)

Where no number is indicated, the agency is a private cooperator with the California Department of Water Resources.

Cooperator's Index Number - This is the number assigned to the station by the agency responsible for, or handling the records of, the station. The U. S. Weather Bureau number is only shown in this column when it differs from the alpha order number.

County - This is a standard code for California counties; those counties used in this appendix are shown below:

County	
Del Norte	08
Glenn	11
Humboldt	12
Lake	17
Mendocino	23
Modoc	25
Siskiyou	47
Trinity	53

TABLE A-1

INDEX OF CLIMATOLOGICAL STATIONS FOR 1968-69

NORTH COASTAL AREA

Station Number	Station Name	Elevation (In Feet)	Section	Township	Range	40-Acre Tract	Base & Meridian	Latitude	Longitude	Cooperator Number	Cooperator's Index Number	Record Began	Record Ended	Years Missing	County Code
F60 0018	ADANAC LODGE	1100	14	23N	17W	H	H	39-50-48	123-42-00			1950			23
F60 0088	ALDERPOINT	435	27	03S	05E		H	40-11	123-36	900		1940			12
F50 0253	ARCATA A P	217	19	07N	01E	Q	H	40-58-18	124-05-24			1957			12
F30 0342-35	ASHLAND ORE	1750	4	39S	01E		W	42-13	122-43	900	350304	1879			61
F30 0715	BESWICK 7 S	6140	33	47N	03W		M	41-52	122-14	900		1952			47
F40 0738	BIG BAR RANGER STA	1270	5	33N	12W		M	40-44-54	123-14-42	900		1943			53
F50 0764	BIG LAGOON	100	18	09N	01E	R	H	41-09-36	124-05-54		PN2125	1947			12
F20 0786-01	BIG SPRINGS 4 E	2955	5	43N	04W	R	M	41-35-30	122-19-42			1960			47
F30 0899	BLUE CREEK MTN LO	4870	30	12N	04E	R	H	41-23-42	123-45-54	900		1960			8
F50 0901	BLUE LAKE	105	30	06N	02E	A	H	40-52-54	123-59-12			1951			12
F70 0920	BLUNTS REEF LV							40-20	124-30	907		1947			12
F30 0922-35	BLY RANGER STA ORE	4356	34	36S	14E		W	42-24	121-03	900	350853	1940			61
F40 0929	BOARDCAMP MTN	4500	26	04N	04E		H	40-42-12	123-42-00			1963			12
F60 1046	BRANSCOMB 2 NW	1480	9	21N	16W	M	M	39-41-12	123-39-36	900		1959			23
F10 1050	BRAY 10 WSW	5759	24	43N	03W		M	41-34	122-08	900		1951			47
F60 1080	BRIDGEVILLE 4 NNW	2050	27	02N	03E		H	40-31	123-49	900		1954			12
F00 1107-35	BROOKINGS OREGON	80	5	41S	13W		W	42-03	124-17	900	351055	1914			61
F60 1181	BULL CREEK	410	36	01S	01E	H	H	40-21-00	124-06-30	804		1960			12
F60 1210	BURLINGTON ST PARK	200	12	02S	02E	D	H	40-18-30	123-54-24	804		1950			12
F40 1215	BURNT RANCH 1S	2150	23	05N	06E	E	H	40-47-48	123-28-48	900		1945			53
F40 1215-01	BURNT RANCH 3NW	2200	10	05N	06E		H	40-47-30	123-30-12	903		1945			53
F40 1215-15	BURNT RCH HMS	1500	14	05N	06E	F	H	40-46-30	123-28-30			1963			53
F60 1263	CAHTO PEAK	4230						39-42	123-36	900		1953			23
F20 1316	CALLAHAN RANGER STA	3136	21	40N	08W		M	41-18	122-48	900		1943			47
F00 1446	CAMP SIX LOOKOUT	3700	31	17N	03E	8	M	41-49-48	123-52-24			1963			8
F30 1606	CECILVILLE 5 SE	2980	12	37N	11W		M	41-00	123-03	900		1954			47
F30 1726	CHILOQUIN OREGON	4200						42-35	121-52	900		1884			61
F30 1799	CLEAR CREEK	975	7	15N	07E	H	H	41-42-30	123-26-54	900		1959			47
F40 1886	COFFEE CREEK RS	2500	6	07W	37N		M	41-05	122-42	900		1960			53
F30 1990	COPCO DAM NO 1	2700	29	48N	04W	P	M	41-59	122-20	900		1928			47
F60 2081	COVELO	1385	12	22N	13W		M	39-47	123-15	900		1921			23
F60 2084	COVELO EEL RIVER RS	1514	28	23N	11W		M	39-50	123-05	900		1940			23
F00 2146	CRESCENT CITY 5 NNE	55	35	17N	01W	N	H	41-49-00	124-09-18	901		1949			8
F00 2147	CRESCENT CITY 1 N	40	20	16N	01W		H	41-46	124-12	900		1885			8
F00 2148	CRESCENT CITY 7 ENE	120	8	16N	01E		H	41-48	124-05	900		1913			8
F00 2150	CRESCENT CITY HMS	50	20	16N	01W		H	41-46	124-12	900		1941			8
F00 2152	CRESCENT CITY 11 E	360	30	16N	02E	B	H	41-45-18	123-59-30			1947			8
F10 2184	CROWDER FLAT	5175	20	47N	11E	K	M	41-53	120-44		PN2188	1958			25
F60 2218	CUMMINGS	1270	21	23N	16W		M	39-50	123-38	900		1927			23
F10 2480	DORRIS INSPECT STA	4240	36	48N	01W	R	M	41-57-18	121-54-30			1959			47
F00 2749	ELK VALLEY	1711	34	19N	04E		H	42-00	123-43	900		1938			8
F20 2899	ETNA	2912	28	42N	09W		M	41-28	122-54	900		1935			47
F60 2910	EUREKA WB CITY	43	22	05N	01W		H	40-48	124-10	900		1878			12
F70 3025	FERNDALE 8 SSW	1445	6	01N	02W	P	H	40-29-30	124-20-24	900		1959			12
F60 3030	FERNDALE 2NW	10	34	03N	02W	K	H	40-33-54	124-16-36	900		1963			12
F50 3041	FIELDBROOK 4 O RCH	285	36	07N	01E	P	H	40-50-36	124-01-06			1956			12
F30 3122	FOOTHILL SCHOOL	2960	25	46N	05W	F	M	41-48-42	122-22-18			1962			
F40 3130	FOREST GLEN	2340	22	01S	08E		H	40-23	123-20	900		1930			53
F30 3151	FORKS OF SALMON	1270	24	10N	07E	A	H	41-15-12	123-19-00	900		1959			47
F00 3173	FORT DICK	46	14	17N	01W		H	41-54	124-09	900		1951			8
F00 3173-12	FORT DICK-ENDERT							-	-	901					47
F20 3176	FORT JONES 6 ESE	3324	12	43N	08W		M	41-35	122-43	900		1941			47
F20 3179	FORT JONES CAA	2930						41-36	122-52	900					47
F20 3182	FORT JONES RANGER ST	2720	2	43N	09W	C	M	41-39	122-51	900		1936			47
F60 3194	FORTUNA	60	35	03N	01W	Q	H	40-35	124-09			1955			12
F60 3217	FOX CAMP	2500	9	02S	01E	R	H	40-18-24	124-03-54	804		1960			12
F60 3320	GARBERVILLE	340	24	04S	03E		H	40-09	123-48	900		1938			12
F60 3322	GARBERVILLE R S	540						40-07	123-47	900		1953			12
F60 3322-01	GARBERVILLE HMS	540	24	04S	03E	G	M	40-09-00	123-47-40	809		1935			12
F00 3357	GASQUET RANGER STA	384	21	17N	02E	N	H	41-56	123-58	900		1940			8
F20 3361-03	GAZELLE - EPPERSON	2760	17	43N	06W	J	M	41-34-18	122-33-12			1950			47
F20 3363	GAZELLE LOOKOUT	5200	8	41N	07W	J	M	41-29-30	122-40-30			1956			47
F20 3614	GREENVIEW	2818	29	43N	09W		M	41-33	122-54	900		1943			47
F60 3647	GRIZZLY CRK REDWOOD	500	11	01N	02E		H	40-29	123-47	900		1963			12
F30 3761	HAPPY CAMP RANGR STA	1090	11	16N	07E		H	41-48	123-23	900		1914			47
F60 3785	HARRIS 7 SSE	1910	27	05S	05E	N	H	39-59-24	123-36-42			1953			23
F40 3859	HAYFORK RANGER STA	2340	12	31N	12W	R	M	40-33	123-10	900		1915			53
F60 3956	HIGH ROCK	900	15	01S	02E	K	H	40-22-48	123-56-30	808		1960			44
F30 3987	HILTS	2900	23	48N	07W		M	42-00	122-38	900		1939			47
F70 4074	HONEYDEW 2 WSW	380	2	03S	01W	C	H	40-14-18	124-09-00	900		1953			12
F70 4074-01	HONEYDEW HUNTER	380	2	03S	01W	M	H	40-14-18	124-09-06			1955			12
F50 4077	HONOR CAMP 42	1875	31	07N	03E	K	H	40-50-48	123-52-42			1956			12
F40 4082	HOOPA	350	25	08N	04E		H	41-03	123-40	900		1941			12
F40 4084	HOOPA 2 SE	315	31	08N	05E		H	41-02	123-39	900		1954			12
F60 4158	HUMBOLT BAY L&S	10						40-49	124-13	907		1909			12
F40 4191	HYAMPOM	1260	25	03N	06E		H	40-37	123-28	900		1940			53
F60 4196	IAQUA BUTTES	3850						40-40	123-50	900		1953			12
F00 4202	IDLEWILD HMS	1250	6	17N	04E	D	H	41-54-00	123-46-12	900		1946			8
F60 4305	ISLAND MTN	940	15	05S	06E	G	H	40-01-42	123-29-30	006		1943			53
F30 4499-35	KENO OREGON	4040	36	39S	07E		W	42-08	121-56	900	354403	1927			61

TABLE A-1 (CONTINUED)

INDEX OF CLIMATOLOGICAL STATIONS FOR 1968-69

NORTH COASTAL AREA

Station Number	Station Name	Elevation (In Feet)	Section	Township	Range	40-Acre Tract	Base & Meridian	Latitude	Longitude	Cooperator Number	Cooperator's Index Number	Record Began	Record Ended	Years Missing	County Code
F30 4577	KLAMATH	25	15	13N	01E		H	41-31	124-02	900		1941			8
F30 4578	KLAMATH 2	70						41-32	124-02	900		1948			8
F30 4580	KLAMATH GLEN	50	18	13N	02E	Q	H	41-31	123-59	907					8
F30 4580-35	KLAMATH FALLS 2 SSW	4098					W	42-13	121-47	007	354506	1884			61
F60 4587	KNEELAND 10 SSE	2356	13	03N	02E		H	40-38	123-54	900		1954			12
F50 4602	KORBEL	150	28	06N	02E	P	H	40-52-00	123-57-30	900		1937			12
F60 4690	LAKE MOUNTAIN		21	05S	07E		H	40-01	123-24	900		1939			53
F60 4698	LAKE PILLSBURY NO 2	1740	10	18N	10W		M	39-25	122-59	900		1964			17
F10 4838	LAVA BEDS NAT MON	4770	28	45N	04E	H	M	41-43-48	121-30-30	900		1940		6	47
F60 4851	LAYTONVILLE	1640	1	21N	15W		M	39-42	123-29	900		1940			23
F60 4853	LAYTONVILLE 3 SW	1900	22	21N	15W		M	39-39-30	123-31-30	901		1917			23
F60 4854	LAYTONVILLE FS	1640	1	21N	15W		M	39-42	123-29	905					23
F20 4984-02	LITTLE SHASTA	2725	26	45N	05W	C	M	41-43	122-23			1960			47
F10 5081-01	LONG BELL STATION	4375	20	42N	05E	B	M	41-28	121-25			1958			25
F50 5244	MAD RIVER RANGER STA	2775	17	01N	06E		H	40-27	123-32	900		1943			53
F20 5324	MARBLE VLY GS	5800	23	43N	12W		M	41-34	123-12						47
F10 5505	MEDECINE LAKE	6660	10	43N	03E		M	41-35	121-37	900		1946			47
F10 5561-35	MERRIL 2NW ORE	4080	34	40S	10E		W	42-03	121-38	900	355505	1906		21	61
F60 5676	MINA 3 NW	2875	28	05S	07E	A	H	40-00-06	123-23-30			1927			53
F60 5711	MIRANDA 4 SE	263	30	03S	04E		H	40-11	123-47	900		1964			12
F60 5713	MIRANDA SPENGLER RCH	400	19	03S	04E		H	40-12	123-46	900		1939			12
F20 5783	MONTAGUE	2500	27	45N	06W	Q	M	41-43-42	122-31-36		045783	1888		5	47
F20 5785	MONTAGUE 3 NE	2640	18	45N	05W		M	41-45	122-28	900		1948			47
F10 5941	MOUNT HEBRON R S	4250	32	46N	01W		M	41-47	122-00	900		1942			47
F40 6032	MUMBO BASIN	5700	35	39N	06W	E	M	41-12	122-32	900		1946			53
F60 6050	MYERS FLAT	190	30	02S	03E		H	40-15-40	123-52-00			1950			12
F30 6328	OAK KNOLL RANGER STA	1963	12	46N	09W		M	41-50	122-51	900		1942			47
F60 6408	OLD HARRIS	2225	30	04S	05E	G	H	40-05-00	123-39-42			1956			12
F50 6497	ORICK	10						41-17	124-03	907					12
F50 6497-01	ORICK 3 NNE	50	22	11N	01E	K	H	41-19-24	124-02-30			1950			12
F50 6497-02	ORICK ARCATA REDWOOD	75	22	11N	01E	K	H	41-19-24	124-02-36			1954			12
F50 6498	ORICK PRAIRIE CREEK	161	2	11N	01E		H	41-22	124-01	900		1937			12
F30 6508	ORLEANS	403	31	11N	06E		H	41-18	123-32	900		1885			12
F30 6509	ORLEANS 8SW	420	19	10N	05E	N	H	41-14-24	123-39-24						12
F30 6513	ORLEANS RS	390						41-18	123-32	900		1953			12
F50 6745	PATRICKS PT ST PK	250	26	09N	01W	L	H	41-08-12	124-09-00	804		1947			12
F70 6835-01	PETROLIA	175	3	02S	02W	L	H	40-19-30	124-16-48			1958			12
F70 6835-02	PETROLIA 4 NW	900	19	01S	02W	O	H	40-22-24	124-18-30			1953			12
F60 6851-15	PHILLIPSVILLE 1SE	300	19	03S	04E	B	M	40-11-42	123-46-00			1963			12
F60 6976	PLASKETT	6580	27	22N	09W	A	M	39-44-12	122-51-24			1960			11
F60 7132	PRATT MOUNTAIN	3890						40-07	123-41	900		1953			12
F50 7342	REDWOOD CRK OKANE	850	15	06N	03E		H	40-54	123-49	907		1964			12
F60 7404	RICHARDSON GROVE	500	13	05S	03E		H	40-02	123-47	900		1961			12
F20 7571-11	ROSS-BROOKS							-	-	901					47
F10 7577-35	ROUND GROVE OREGON	4888	25	37S	15E		W	42-20	120-53	900	357354	1920			61
F40 7698	SALYER RANGER STA	623	14	06N	05E		H	40-53	123-35	900		1931			53
F30 8025	SAWYERS BAR R S	2169	20	40N	11W		M	41-18	123-08	900		1931			47
F30 8039	SCHOOLHOUSE PEAK	3060						41-09	123-53	900		1953			12
F60 8045	SCOTIA	139	7	01N	01E		H	40-29	124-06	900		1926			12
F60 8047	SCOTIA TELEMARK	30						40-30	124-06	907					12
F30 8083-01	SEIAD VALLEY R S	1371	11	46N	12W	R	M	41-50-36	123-11-42	905		1953			47
F70 8162	SHELTER COVE	55	16	05S	01E		H	40-02	124-04	900		1959			12
F60 8163	SHERWOOD VALLEY	2170	32	20N	14W	F	M	39-32-36	123-26-30	901		1958			23
F00 8311-01	SMITH RIVER 2 WNW	195	21	18N	01W	A	H	41-50-30	124-10-42			1951			8
F30 8346-05	SOMESBAR UKONOM RS	727	33	12N	06E		H	41-23	123-28	905	PN8919	1965			12
F60 8392	SOUTH FORK	155	26	01S	02E	Q	H	40-20-42	123-54-54	006		1944			12
F30 8443-35	SPRAGUE RIVER ORE	4361	14	36S	10E		W	42-27	121-30	900	358007	1953			61
F60 8490	STANDISH HICKEY PARK	850	3	23N	17W	F	M	39-56-30	123-43-30	900		1949			23
F60 8668-50	SUNNY BRAE	70	33	06N	01E		H	40-52	124-04			1965			12
F40 9024	TRINITY DAM VISTA PT	2500	16	34N	08W		M	40-48	122-46	900		1959			53
F10 9053	TULELAKE	4035	6	47N	05E		M	41-58	121-28	900		1932			47
F10 9057	TULELAKE INSP STN	4408	31	44N	07E	F	M	41-36	121-12		049057	1953			25
F60 9117	TWO ROCK	2750						39-22	123-27	900		1953			23
F70 9177	UPPER MATTOLE	255	33	02S	01W		H	40-15	124-11	900		1886			12
F40 9490	WEAVERVILLE RANGER S	2050	12	33N	10W		M	40-44	122-56	900		1869			53
F20 9499	WEED FO	3593	1	41N	05W	M	M	41-25	122-23	900		1957			47
F60 9527	WEOTT 2SE	600	12	02S	02E	H	H	40-16-29	123-53-40			1961			12
F70 9654	WHITETHORN	1050	15	05S	02E	E	M	40-01-18	123-56-12			1962			12
F40 9675-35	WILDWOOD	3350	1	29N	10W	C	M	40-23-54	123-03-18			1963			53
F60 9684	WILLITS 1 NE	1350	17	18N	13W		M	39-25	123-21	900		1950			23
F60 9685	WILLITS HOWARD RS	1925	5	17N	13W		M	39-21	123-19	900		1935			23
F60 9686	WILLITS NW PAC RR	1365	18	18N	13W	L	M	39-24-12	123-21-06	006		1911		5	23
F20 9866	YREKA	2631	27	45N	07W		M	41-43	122-38	900		1871			47
F60 9940	ZENIA 1 SSE	2880	22	03S	06E	G	H	40-11-18	123-28-54			1950			53

TABLE A-2
PRECIPITATION DATA
NORTH COASTAL AREA

Station Name	Precipitation in Inches															
	Total July 1 To June 30	1968						1969								Total Oct. 1 To Sept. 30
		July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
NORTH COASTAL AREA F																
SMITH RIVER F0																
CRESCENT CITY 1 N	89.07	.40	5.30	1.05	5.81	10.97	26.24	18.29	10.75	2.49	5.04	1.85	.88	.07	.05	3.08	85.52
CRESCENT CITY 7 ENE	96.55	.14	4.75	1.41	7.39	15.78	18.56	21.36	14.14	3.47	6.27	2.42	.86	.05	.04	3.99	94.33
CRESCENT CITY H.M.S.	---	.32	--	--	--	---	---	---	---	2.27	4.24	1.78	--	--	--	2.83	---
CRESCENT CITY 11 E	111.78	.11	4.71	1.88	8.51	16.54	24.03	25.05	15.69	5.60	6.59	2.46	.61	.04	T	3.56	108.68
ELK VALLEY	79.40	.03	3.72	1.15	4.94	12.35	19.68	19.61	9.08	3.10	4.21	1.02	.51	T	T	3.50	78.00
FORT DICK	89.91	.45	6.05	1.19	6.30	13.76	16.94	18.56	12.90	3.17	6.94	2.71	.94	T	.05	4.45	86.72
GASQUET RANGER STATION	97.16	.09	4.18	1.57	7.17	16.11	21.13	20.02	14.33	4.15	5.80	2.28	.33	.04	.03	3.25	94.64
IDLEWILD H.M.S.	83.94	.06	3.44	1.32	6.29	12.54	21.24	18.03	10.46	3.83	4.91	1.46	.36	.00	.00	1.86	80.98
SMITH RIVER 2 WNW	86.44	.45	6.72	1.85	6.90	15.08	16.99	15.80	10.28	3.30	5.16	2.86	1.05	.00	.04	4.75	82.21
LOST RIVER - BUTTE VALLEY F1																
DORRIS INSPECTION STA	13.88	.01	1.61	.19	.82	1.87	1.80	3.31	.98	.23	1.09	.98	.99	.23	.00	.26	12.56
LAVA BEDS NAT'L MON	21.52	.02	2.33	.11	1.13	1.30	4.51	4.97	2.02	.59	1.11	1.01	2.42	.07	.00	.01	19.14
MOUNT HEBRON R S	11.76	.00	1.25	.08	.51	1.28	1.85	2.79	1.16	.21	1.13	.36	1.14	.33	.00	.17	10.93
TULELAKE	13.16	.00	1.98	.16	.74	1.50	2.00	2.82	.95	.55	.59	.45	1.42	.28	.00	.04	11.34
TULELAKE INSP STA	15.29	.00	.73	.01	.78	1.13	3.00	5.28	1.58	.54	1.42	.21	.61	.11	.00	T	14.66
SHASTA - SCOTT VALLEYS F2																
BIG SPRINGS 4 E	12.34	.13	1.55	.00	.74	1.28	1.44	2.14	1.03	.33	1.35	1.02	1.33	.17	.00	.20	11.03
CALLAHAN RANGER STA	25.01	.23	.74	.23	.91	2.06	7.76	5.81	3.39	.44	1.43	.44	1.57	.04	.00	.16	24.01
ETNA	25.02	.04	.83	.22	1.47	3.07	6.12	8.02	2.27	.17	.45	.12	2.24	1.39	.00	.22	25.54
FORT JONES 6 ESE	25.80	.00	.70	.10	1.70	2.80	4.30	6.90	1.50	.50	3.10	1.30	2.90	.20	.00	.30	25.50
FORT JONES RANGER STA	22.86	.00	.67	.13	1.34	2.99	5.20	7.98	1.85	.23	.64	.52	1.31	.53	.00	.24	22.83
GAZELLE EPPERSON	16.11	.00	2.86	.03	.44	1.57	1.70	3.20	1.80	.44	1.06	.57	2.44	1.37	.00	.19	14.78
GREENVIEW	23.69	.07	.57	.05	1.30	2.70	5.40	10.09	1.55	T	.00	.60	1.36	.25	.00	.33	23.58
LITTLE SHASTA	15.55	.00	.92	.10	1.36	1.77	1.19	4.12	1.33	.43	1.43	.73	2.17	2.08	.00	.25	16.86
MONTAGUE	15.06	.01	1.09	.21	.57	2.10	1.75	5.20	.30	.64	1.18	.35	1.66	.27	.00	.10	14.12
MONTAGUE 3 NE	---	.00	.81	.00	.54	1.10	1.66	4.54	1.32	.13	1.04	--	2.07	.95	.00	--	---
WEED FIRE DEPARTMENT	29.95	.00	1.47	.15	1.48	1.65	7.00	7.60	4.58	.76	2.49	1.66	1.11	.16	.00	.25	28.74
YREKA	22.45	.02	1.73	.14	.91	2.53	4.36	6.65	1.25	.45	1.09	.44	2.88	.05	.00	.15	20.76
KLAMATH RIVER F3																
CECILVILLE 5 SE	42.20	.30	2.90	.44	2.89	3.90	9.54	12.71	4.39	.55	1.97	.67	1.94	.14	.00	.31	39.01
CLEAR CREEK	66.23	.00	2.99	.62	4.57	9.53	17.47	17.65	8.10	1.75	2.17	.61	.77	1.10	.00	.61	64.33
COPCO DAM NO. 1	20.58	T	1.17	.17	1.29	3.52	2.72	6.47	1.53	.67	1.50	.31	1.23	.64	.00	.21	20.09
FOOTHILL SCHOOL	17.39	.00	1.17	.06	1.04	1.80	1.81	5.28	1.97	.23	2.06	.57	1.40	.00	.00	.30	16.46
FORKS OF SALMON	52.25	.00	1.68	.28	3.76	7.55	14.81	13.73	5.60	1.40	2.35	.40	.69	.22	.00	.30	50.81
HAPPY CAMP RANGER STA	58.39	.00	2.66	.34	3.65	8.47	15.97	15.93	6.56	1.60	1.40	.87	.94	.82	.00	.46	56.67
HILTS	23.22	.00	1.08	.39	1.26	2.42	5.75	6.30	1.79	.38	1.01	1.86	.98	.30	.00	.24	22.29
KLAMATH	91.30	.20	5.50	1.50	5.40	16.20	16.75	22.80	10.60	3.80	6.20	1.93	.42	T	T	2.50	86.60
OAK KNOLL RANGER STA	31.96	.00	.97	.37	1.63	4.36	7.67	9.30	2.05	.73	1.46	.99	2.43	.22	.00	.01	30.85
ORLEANS	58.98	.00	3.46	.60	4.62	8.54	11.30	17.44	6.92	1.53	2.99	.99	.59	.36	.00	.57	55.85
SAWYERS BAR RANGER STA	48.27	.00	2.20	.43	4.58	7.07	11.11	14.16	3.82	1.21	1.77	.53	1.39	.27	.00	.43	46.34
SEIAD VALLEY R S	49.76	.00	2.21	.49	3.45	7.45	11.61	15.19	4.30	1.07	1.45	1.14	1.40	.18	.00	.26	47.50
SOMESBAR-UKONOM R S	69.24	.00	3.33	.58	5.06	9.56	16.44	19.93	7.25	2.11	3.40	1.03	.55	.51	.00	.39	66.23
TRINITY RIVER F4																
BIG BAR RANGER STATION	49.00	.00	1.66	.29	2.91	5.10	13.78	15.79	6.09	1.79	1.09	.17	.33	.04	.00	.31	47.40
BURNT RANCH 1 S	59.84	.00	2.30	.33	2.74	7.00	16.50	15.41	8.57	1.78	3.08	.77	1.36	.07	.00	.53	57.81
BURNT RANCH H.M.S.	56.42	.00	2.30	.35	2.34	6.83	16.00	13.89	8.17	1.56	2.83	1.01	1.14	.02	.00	.46	54.25
COFFEE CREEK R S	---	.00	1.50	.20	3.40	7.00	20.50	18.00	--	--	3.60	1.00	2.10	.00	.00	.30	---
FOREST GLEN	86.11	.00	2.50	.24	4.16	8.28	22.21	26.71	13.19	2.02	4.60	.85	1.35	T	.00	.24	83.61
HAYFORK RANGER STA	45.56	T	1.01	.16	1.39	4.47	15.04	12.82	6.55	1.38	1.32	.20	1.22	.10	.00	.07	44.56
HOOPA	73.05	.02	3.61	.39	3.81	9.71	20.33	19.90	8.98	2.30	3.02	.55	.43	.08	.00	.40	69.51
HOOPA 2 SE	70.45	T	3.65	.40	4.09	10.04	17.64	19.18	8.15	2.38	3.75	.44	.73	T	.00	.40	66.80
HYAMPOM	52.36	.00	2.18	.33	1.88	6.90	15.45	14.04	7.39	1.04	1.88	.40	.87	.00	.00	.12	49.97
SALYER RANGER STATION	---	.00	3.19	.35	3.13	9.21	RE										
TRINITY DAM VISTA PT	39.07	.00	1.44	.18	1.69	4.52	10.57	10.48	5.62	1.44	1.30	.97	.86	T	.00	.17	37.62
WEAVERVILLE R S	44.13	.00	1.08	.18	1.88	5.25	11.96	13.47	5.59	1.50	1.40	.15	1.67	.02	.00	.17	43.06
MAD RIVER F5																
ARCATA AIRPORT	54.81	.15	3.46	.84	3.57	8.56	9.53	12.84	9.07	2.00	3.53	1.08	.18	.48	.04	.58	51.46
BIG LAGOON	70.28	.09	4.42	.88	4.29	9.08	14.69	16.48	10.55	2.32	5.02	1.46	1.00	.40	.00	1.25	66.54
BLUE LAKE	56.55	.13	2.93	.89	2.80	7.71	11.73	14.93	7.08	2.55	3.93	.94	.93	.03	.03	.50	53.16
FIELDBROOK 4D RANCH	83.22	.10	5.10	1.10	4.02	12.50	14.20	25.25	11.15	3.40	4.75	1.10	.55	T	.00	1.30	78.22
HONOR CAMP 42	89.94	.17	6.02	1.28	4.89	15.68	17.27	21.46	11.85	3.62	5.48	1.74	.48	.08	.09	1.26	83.90
KORBEL	60.53	.09	3.26	.94	3.29	8.62	12.14	15.77	7.55	2.53	4.09	1.08	1.17	.02	.03	.36	56.65
MAD RIVER RANGER STA	75.53	.00	2.46	.32	3.82	9.90	19.78	19.62	12.36	1.76	4.37	.45	.69	.00	.00	.48	73.23
ORICK 3 NNE	---	.14	5.64	1.15	3.70	10.77	14.10	17.87	9.64	3.30	5.10	--	--	--	--	--	---
ORICK ARCATA REDWOOD	72.01	.13	5.35	1.06	3.64	11.52	12.17	18.41	9.40	3.22	5.11	1.37	.63	.41	.00	1.13	67.01
ORICK PRAIRIE CRK PK	69.40	.17	5.67	1.01	3.99	9.95	14.63	14.56	8.66	3.73	4.80	1.31	.92	.48	.05	1.24	64.32
PATRICKS POINT ST PK	71.75	.18	4.53	1.09	4.94	10.76	12.89	17.24	10.41	2.46	4.48	2.05	.72	.39	.07	1.39	67.80

- No record or record imcomplete
T Trace
RE Record ended

TABLE A-2 (Continued)

PRECIPITATION DATA

NORTH COASTAL AREA

Station Name	Precipitation in Inches															
	Total July 1 To June 30	1968						1969								Total Oct. 1 To Sept. 30
		July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
NORTH COASTAL AREA F																
EEL RIVER F6																
ADANAC LODGE	92.03	.00	5.10	.42	4.98	8.53	22.86	24.95	16.06	2.84	5.69	.27	.33	.00	.00	.40	86.91
ALDERPOINT	63.47	T	4.22	.23	2.25	5.29	17.93	17.94	9.98	1.84	3.61	.06	.12	T	.00	.27	59.29
BRANSCOMB 2 NW	93.02	.00	4.07	.57	4.59	8.84	23.80	27.04	15.05	2.74	5.58	.39	.35	T	.00	.49	88.87
BRIDGEVILLE 4 NNW	80.90	.07	3.91	.85	4.23	10.37	17.73	21.74	13.19	2.72	5.12	.40	.57	T	.00	1.27	77.34
BULL CREEK	---	T	--	.26	3.92	---	25.91	17.17	16.93	2.61	4.91	.70	.33	.00	---	.47	---
BURLINGTON STATE PK	---	.00	--	.18	3.76	---	26.23	22.56	---	2.65	4.68	.59	.29	.00	.00	.11	---
COVELO	56.18	.00	4.26	.08	2.56	4.44	16.08	14.73	9.11	1.87	2.28	.47	.30	.00	.00	.11	51.95
COVELO EEL RIVER R S	---	.00	4.23	.08	2.56	5.15	15.79	14.27	---	9.85	2.84	.10	.23	.00	.00	--	---
CUMMINGS	89.96	.00	4.61	.46	4.32	7.75	25.60	23.64	16.02	2.67	4.41	.35	.13	.00	.00	.34	85.23
EUREKA W B CITY	47.50	.04	1.98	.60	2.81	5.88	8.32	13.92	7.82	1.56	3.22	1.01	.34	.05	T	.36	45.29
FERNDALE 2 NW	54.23	.22	2.11	.35	2.56	5.81	11.55	13.88	11.10	1.45	3.57	1.10	.53	.16	.01	.38	52.10
FORTUNA	56.09	.00	2.26	.33	2.50	5.52	13.21	14.86	10.79	2.04	3.42	.74	.42	.00	T	.36	53.66
FOX CAMP	---	.05	--	.48	--	---	27.90	24.06	---	--	--	.12	---	---	---	1.94	---
GARBERVILLE	72.15	.00	1.89	.16	3.28	6.51	22.68	18.97	12.66	2.50	3.48	T	.02	.00	.00	.28	70.38
GARBERVILLE H.M.S.	81.36	.00	2.06	.50	3.70	6.65	26.18	21.47	13.44	2.56	4.20	.27	.33	.04	.00	.37	79.21
GRIZZLY CRK REDWOOD	---	T	2.85	.57	3.69	7.98	18.37	---	13.60	2.65	4.82	.46	.50	.03	T	.80	---
HARRIS 7 SSE	85.45	.00	3.47	.43	3.14	7.01	24.96	24.54	14.76	2.20	4.36	.26	.32	T	.00	.24	81.79
HIGH ROCK	82.64	.00	2.47	.21	6.66	6.59	21.53	21.29	16.23	2.39	4.52	.43	.32	.00	.00	.37	80.33
KNEELAND 10 SSE	73.75	.03	3.81	.72	3.26	10.01	17.24	18.36	10.22	3.20	4.94	.77	1.19	.00	.00	1.31	70.50
LAKE MOUNTAIN	71.00	.00	3.47	.61	2.80	7.63	19.77	18.21	12.71	1.88	3.31	.13	.48	.00	.00	.27	67.19
LAKE PILLSBURY NO. 2	64.77	.00	2.05	.15	2.87	6.00	16.65	19.71	11.55	1.74	2.76	.20	1.09	.00	.00	.00	62.57
LAYTONVILLE	---	.00	5.30	.20	3.25	6.51	23.96	1.71	32.63	1.90	3.27	.15	.15	.00	.00	.17	73.70
MINA 3 NW	60.67	.00	3.40	.40	2.76	9.24	16.90	13.16	8.10	2.44	3.87	.00	.40	.00	.00	.32	57.19
MYERS FLAT	79.81	.00	1.69	.52	3.74	7.86	23.94	21.67	13.39	2.17	3.94	.44	.45	.01	.00	.45	73.06
OLD HARRIS	90.48	T	3.53	.44	4.09	7.89	20.42	31.84	13.55	2.53	5.25	.38	.56	.10	.00	.48	87.09
PHILLIPSVILLE 1 SE	---	.00	1.81	.23	3.85	7.09	19.66	20.09	10.41	1.97	3.76	RE					---
RICHARDSON GROVE	88.14	.00	2.94	.19	5.21	7.40	26.30	24.98	12.85	3.07	4.64	.39	.17	.00	.00	.37	85.38
SCOTIA	64.75	.06	1.53	.19	3.23	5.64	17.37	16.19	13.52	2.08	3.78	.73	.43	.01	.00	.70	63.62
SHERWOOD VALLEY	---	.00	.62	2.33	3.60	7.10	23.84	---	---	--	--	---	---	---	---	---	---
STANDISH HICKEY PARK	87.38	.00	4.35	.36	4.70	7.08	22.23	24.33	12.78	4.74	4.36	.20	2.25	.00	.00	.45	83.12
SUNNY BRAE	52.16	.10	3.07	.81	2.96	7.28	9.48	12.84	8.43	2.18	3.34	1.07	.60	.26	.03	.56	49.03
WEOTT 2 SE	85.17	.00	1.86	.18	4.41	7.42	26.24	23.32	12.70	3.84	4.59	.58	.03	.00	.00	.37	83.50
WILLITS 1 NE	72.09	.00	2.11	.21	2.29	5.45	20.89	22.79	12.20	2.37	3.30	.05	.43	.00	.00	.09	69.56
WILLITS HOWARD R S	63.12	.00	1.33	.21	2.91	5.38	17.66	19.17	11.29	1.92	2.94	.11	.20	.00	.00	.10	61.68
WILLITS N W PAC R R	67.61	.00	1.66	.36	2.15	5.74	18.72	22.70	10.87	2.07	2.98	.05	.31	.00	.00	.06	65.65
ZENIA 1 SSE	85.03	.00	2.75	.64	4.03	8.33	23.55	24.60	13.59	2.67	3.67	.48	.72	.00	.00	.75	82.39
MATTOLE RIVER F7																
FERNDALE 8 SSW	---	.36	1.87	.38	2.86	6.18	9.70	7.86	---	--	--	1.34	1.47	.41	.33	.61	---
HONEYDEW 2 WSW	128.80	T	4.67	.31	7.05	9.72	33.95	34.93	25.88	3.49	6.34	2.26	.20	.00	T	.62	124.44
HONEYDEW HUNTER	132.25	.00	4.49	.29	7.00	11.07	33.85	31.37	26.54	8.91	4.12	4.40	.21	.00	.00	.60	126.07
PETROLIA	82.56	.10	3.75	.49	3.56	7.48	19.05	20.56	18.29	2.50	4.82	1.48	.18	.00	.00	.58	78.80
PETROLIA 4 NW	61.03	.12	3.08	.55	2.93	6.39	12.15	13.95	12.17	3.24	4.10	1.73	.62	.00	.00	.83	58.11
SHELTER COVE	61.20	T	3.30	.53	3.37	7.71	12.64	16.28	9.83	2.56	3.74	1.01	.23	.02	T	1.80	59.19
UPPER MATTOLE	96.39	.00	3.94	.33	5.58	9.14	23.17	24.40	19.27	2.86	5.49	1.68	.53	.00	.00	.67	92.79
WHITETHORN	95.33	.00	3.30	.00	6.83	11.70	20.75	27.43	14.82	3.89	5.05	1.33	.23	.05	.00	.92	93.00

- No record or record incomplete
T Trace
RE Record ended

TABLE A-3

STORAGE GAGE PRECIPITATION DATA
NORTH COASTAL AREA

Station	Measuring Agency	1968-69 Season Measurement Period		Precipitation in Inches
NORTH COASTAL AREA				
SMITH RIVER				
Camp Six Lookout	DWR	7-09-68	7-08-69	104.18
LOST RIVER-BUTTE VALLEY				
Bray 10 WSW	DWR	8-20-68	7-08-69	30.87
Crowder Flat	DWR	7-17-68	8-15-69	25.03
Long Bell Station	DWR	7-18-68	7-11-69	35.90
Medicine Lake	DWR	8-20-68	7-10-69	52.13
SHASTA-SCOTT VALLEYS				
Gazelle Lookout	DWR	7-09-68	7-09-69	25.16
KLAMATH RIVER				
Beswick 7S	DWR	8-20-68	7-08-69	49.08
Blue Creek Mountain	DWR	8-06-68	7-07-69	119.36
TRINITY RIVER				
Board Camp Mountain	DWR	7-08-68	7-07-69	76.98
Mumbo Basin	DWR	7-10-68	7-10-69	72.66
EEL RIVER				
Plaskett	DWR	8-15-68	7-24-69	76.91

DWR - Department of Water Resources

TABLE A-4 EVAPORATION DATA

The definition of terms and the abbreviations used in Table A-4 are as follows:

Evap - The total amount of water evaporated from the pan in inches for the month.

Wind - The amount of movement of air over the pan in miles for the month.

Avg Max - The arithmetic average of daily maximum water temperatures in degrees Fahrenheit for the month.

Avg Min - The arithmetic average of daily minimum water temperatures in degrees Fahrenheit for the month.

Station Name		Evaporation in Inches / Wind in Total Miles / Water Temperature in Degrees Fahrenheit															
		Total July 1 To June 30	1968						1969								Total Oct 1 To Sept 30
			July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
NORTH COASTAL AREA																	
LOST RIVER-BUTTE VALLEY																	
TULELAKE	Evap	---	10.37	7.07	6.61	3.53	---	---	---	---	---	---	9.32	7.34	9.57	9.61	8.41	---
	Wind																	
	Avg Max																	
	Avg Min																	
KLAMATH RIVER																	
SEIAD VALLEY RANGER S	Evap	---	9.09	6.31	4.73	---	---	---	---	---	---	---	---	---	8.48	8.13	5.08	---
	Wind																	
	Avg Max																	
	Avg Min																	
TRINITY RIVER																	
TRINITY DAM VISTA PT	Evap	---	10.78	7.02	6.11	2.42	---	---	---	---	---	3.61	7.62	7.02	10.21	9.79	5.81	---
	Wind	---	1179	1201	1062	1078	908	---	---	---	1206	1258	1554	1216	1297	1258	10.39	---
	Avg Max																	
	Avg Min																	
WILLOW CREEK 1 NW	Evap	---												6.00	8.47	7.04	4.87	---
	Wind	---												300	508	527	333	---
	Avg Max	---										RECORD	BEGAN	84.9	93.2	89.2	85.7	---
	Avg Min	---												59.0	61.1	50.7	54.7	---
EEL RIVER																		
FERNDALE 2 NW	Evap	28.96	4.27	3.89	3.11	1.99	0.79	0.75	0.48	0.83	2.70	3.15	3.81	3.19	4.66	4.60	3.60	30.5
	Wind	11321	885	790	591	699	717	1499	1188	1360	1131	946	848	667	870	735	755	11415
	Avg Max	67.1	79.2	79.8	76.4	68.0	59.2	50.4	50.7	53.4	65.5	70.5	76.1	76.0	78.8	79.9	76.2	67.1
	Avg Min	49.2	57.2	58.3	55.1	49.3	46.6	40.2	40.2	40.4	43.7	47.9	53.2	57.8	56.6	56.2	54.3	49
LAKE PILLSBURY NO. 2	Evap	---	11.17	7.70	6.97	3.24	1.00	0.52	0.36	0.60	3.28	---	---	7.66	10.83	10.18	6.91	---
	Wind	---	628	602	581	322	160	236	257	214	570	---	---	599	532	503	453	---
	Avg Max	---	92.1	86.2	82.6	70.3	56.0	44.7	46.4	48.1	64.6	---	---	87.4	93.3	90.7	84.0	---
	Avg Min	---	59.9	58.5	53.8	46.9	43.0	36.1	36.5	37.5	40.3	---	---	58.6	60.4	57.6	55.	---

APPENDIX B

SURFACE WATER MEASUREMENTS

INTRODUCTION

This appendix presents surface water data for the 1969 water year, the period from October 1, 1968, to September 30, 1969. The data consist of daily mean discharges, gaging station locations, and summary tables of monthly and annual unimpaired runoff from major streams.

Continuous records of stage and flow, together with instantaneous peak flood data are available in the files of the Department of Water Resources.

Each station in this appendix has been assigned an identification number. The letter and first digit denote the drainage basin as shown below. The remaining digits identify each station.

North Coastal Area

F0 - Smith River
F1 - Lost River-Butte Valley
F2 - Shasta-Scott Valleys
F3 - Klamath River
F4 - Trinity River
F5 - Mad River
F6 - Eel River
F7 - Mattole River

INDEX TO GAGING STATIONS

SURFACE WATER MEASUREMENT STATIONS

TABLE B-1 ANNUAL UNIMPAIRED RUNOFF

Unimpaired runoff is defined as the flow that would occur naturally at a point in a stream if there were: (1) no upstream controls such as dams or reservoirs; (2) no artifical diversions or accretions; and (3) no change in ground water storage resulting from development.

TABLE B-1

ANNUAL UNIMPAIRED RUNOFF

In Percent of Average

Water Year	Klamath River, Copco To Orleans	Salmon River at Somesbar	Trinity River at Lewiston	Eel River at Scotia
Average Annual Runoff*	4332	1180	1167	5146
1915-16			129	
1916-17			56	84
1917-18			52	44
1918-19			99	103
1919-20			35	28
1920-21			154	152
1921-22			67	72
1922-23			59	54
1923-24			23	17
1924-25			128	139
1925-26			69	64
1926-27			156	153
1927-28	88	93	91	90
1928-29	58	50	45	37
1929-30		65	70	68
1930-31	41	40	34	31
1931-32	77	89	62	70
1932-33	83	86	69	71
1933-34	50	49	59	48
1934-35	83	96	83	99
1935-36	92	97	88	112
1936-37	75	83	86	69
1937-38	183	189	180	209
1938-39	59	64	49	52
1939-40	104	108	138	142
1940-41	103	107	218	160
1941-42	107	112	155	144
1942-43	137	147	95	111
1943-44	63	54	56	44
1944-45	84	96	90	93
1945-46	118	129	121	117
1946-47	60	65	63	51
1947-48	99	105	103	92
1948-49	74	81	94	81
1949-50	94	100	73	80
1950-51	146	152	138	139
1951-52	153	166	156	156
1952-53	149	153	138	139
1953-54	142	136	136	134
1954-55	61	50	63	62
1955-56	191	186	174	198
1956-57	100	100	93	84
1957-58	189	191	231	227
1958-59	79	85	89	80
1959-60	80	80	88	91
1960-61	104	102	104	104
1961-62	75	81	89	77
1962-63	136	145	137	138
1963-64	92	95	68	67
1964-65	165	158	147	183
1965-66	103	94	115	100
1966-67	120	107	142	129
1967-68	78**	80	87	83**
1968-69	130**	142**	150**	170**

* Average Unimpaired Runoff in Thousands of Acre-Feet Computed From the 50-Year Period October 1915 Through September 1965.

** Preliminary Data Subject to Revision

TABLE B-2

MONTHLY UNIMPAIRED RUNOFF

In Percent of Average

Month		Klamath River Copco to Oreleans	Salmon River at Somesbar	Trinity River at Lewiston	Eel River at Scotia
October 1968	Percent*	32	86	57	30
	Average**	90	22	21	56
November 1968	Percent*	107	132	85	48
	Average**	220	56	47	274
December 1968	Percent*	99	115	97	217
	Average**	485	116	91	874
January 1969	Percent*	173	216	168	309
	Average**	579	141	94	1042
February 1969	Percent*	108	94	96	146
	Average**	595	155	144	1180
March 1969	Percent*	98	90	117	105
	Average**	577	157	152	797
April 1969	Percent*	135	133	164	85
	Average**	630	180	214	571
May 1969	Percent*	203	197	228	127
	Average**	572	186	229	235
June 1969	Percent*	145	153	172	104
	Average**	334	108	118	79
July 1969	Percent*	109	177	137	118
	Average**	126	35	35	22
August 1969	Percent*	67	129	69	133
	Average**	67	14	13	9
September 1969	Percent*	25	120	33	157
	Average**	57	10	9	7
1968-69 Water Year		130	142	150	170
		4332	1180	1167	5146

* Preliminary Data Subject to Revision.
** Average Unimpared Runoff in Thousands of Acre-Feet Computed From the 50-Year Period October 1915 Through September 1965.

TABLE B-3 DAILY MEAN DISCHARGE

The streamflow table is arranged in downstream order for each stream or stream system. Stations on a tributary entering between two main stem stations are listed between those stations, and in downstream order on that tributary. A stream gaging station is named after the stream and the nearest post office (e.g., Weaver Creek near Douglas City).

The discharges estimated for periods of no record or invalid record are shown with the letter "E". Also qualified by the letter "E" are discharges obtained from extended ratings which exceed 140 percent of the highest measured flow-rate on which the rating curve was based.

The discharge figures in this table have been rounded off as follows:

1. Daily flows - cubic feet per second

0.0	- 9.9	nearest	Tenth
10	- 999	"	Unit
1,000	- 9,999	"	Ten
10,000	- 99,999	"	Hundred
100,000	- 999,999	"	Thousand

2. Monthly means - cubic feet per second

0.0	- 99.9	nearest	Tenth
100	- 9,999	"	Unit
10,000	- 99,999	"	Ten
100,000	- 999,999	"	Hundred

3. Yearly totals - acre-feet

0.0	- 9,999	nearest	Unit
10,000	- 99,999	"	Ten
100,000	- 999,999	"	Hundred
1,000,000	- 9,999,999	"	Thousand

ABLE B-3

AILY MEAN DISCHARGE

(IN CUBIC FEET PER SECOND)

WATER YEAR	STATION NO.	STATION NAME
1969	F21300	LITTLE SHASTA RIVER NEAR MONTAGUE

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	2.8	3.2	4.5	1.0 E	16	11	106	73 #	45	13	6.6	5.0	1
2	2.8 *	5.1	4.8	6.5 E	12	11	90	71	41	13 *	6.6	5.0	2
3	2.8	4.2	4.8	23	12	12	70	65	39	13	6.6	5.0	3
4	2.8	3.6	5.9	29	13	10	60	62	38	12	6.3	5.0 *	4
5	2.8	3.6	6.8	32	12	11	71	68	37	12	6.3	5.0	5
6	2.8	3.4	7.1	29	12	12	66	76 *	32	12	6.3	4.7	6
7	2.8	3.4	6.2	23	12	11	61	83	29	11	6.3	4.7	7
8	2.8	3.6	5.9	16 E	12	11	59 *	89	29	11	6.0	4.7	8
9	2.8	5.4	7.9	15 E	12	12	58	92	29	11	6.0	4.7	9
10	2.8	4.2	39	14 E	14 *	11	60	94	29	11	5.6	4.7	10
11	3.4	5.1	22	13 E	25	11 *	72	95	29	10	5.6	4.7	11
12	6.2	9.1	13 *	12 E	25	11	83	95	26 *	9.9	5.6 *	4.7	12
13	4.8	5.1 *	9.5	15	18	11	69	94	25	9.5	5.6	4.7	13
14	3.8	4.0	7.9	13	16	12	66	90	23	9.5	5.6	4.7	14
15	3.8	4.2	8.7	11 *	16	18	62	84	23	9.5	5.6	4.4	15
16	3.4	3.8	7.5	9.5	15	30	71	80	21	9.0	5.6	4.7	16
17	2.8	5.6	8.3	8.7	15	41	90	78	20	8.5	5.3	4.4	17
18	2.8	15	7.5	9.1	15	38	98	80	20	8.5	5.3	5.0	18
19	2.6	9.5	6.8	22	16	29	95	76	23	8.1	5.3	5.3	19
20	4.5	6.5	6.5	118	14	29	100	73	21	8.1	5.3	5.6	20
21	3.6 *	5.4	6.8	95	13	32	104	70	18	7.6	5.3	5.3	21
22	3.0	6.5	6.8	44	12	49	102	68	18	7.3	5.3	5.0	22
23	2.8	5.9	6.8	29	12	54	92	67	18	8.1	5.3	4.7	23
24	2.8	5.1	6.8	29	12	51	78	66	18	8.5	5.0	4.7	24
25	2.8	4.5	6.5	29	11	56	71	64	16	8.1	5.0	4.4	25
26	2.8	4.8	6.2	37	11	71	68	65	16	7.6	5.0	4.4	26
27	2.8	5.1	5.9	31	11	83	71	64	16	7.3	5.0	3.8	27
28	2.8	5.1	4.5 E	22	9.9	94	80	57	16	6.9	5.3	3.8	28
29	3.0	4.5	3.0 E	21		106	82	52	14	6.9	5.3	4.4 *	29
30	3.4	4.2	1.8 E	21		121	75	49	14	6.9	5.3	4.7	30
31	3.2		1.5 E	20		118		47		6.6	5.0		31
EAN	3.2	5.3	8.0	25.7	14.1	38.0	77.7	73.8	24.8	9.4	5.6	4.7	MEAN
AX.	6.2	15	39	118	25	121	106	95	45	13	6.6	5.6	MAX.
IN.	2.6	3.2	1.5 E	1.0 E	9.9	10	58	47	14	6.6	5.0	3.8	MIN.
C. FT.	197	315	490	1582	781	2335	4621	4536	1474	578	346	281	AC. FT.

— ESTIMATED
— NO RECORD
— DISCHARGE MEASUREMENT OR OBSERVATION OF FLOW MADE THIS DAY.
— E AND *

WATER YEAR SUMMARY

MEAN DISCHARGE	MAXIMUM DISCHARGE	MAXIMUM GAGE HT.	MAXIMUM MO.	MAXIMUM DAY	MAXIMUM TIME	MINIMUM DISCHARGE	MINIMUM GAGE HT.	MINIMUM MO.	MINIMUM DAY	MINIMUM TIME	TOTAL ACRE FEET
24.2	180	3.00	1	20	2000	1.0	123	1	1	2400	17,540

LOCATION			MAXIMUM DISCHARGE OF RECORD			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.&M.	CFS	GAGE HT.	DATE	DISCHARGE	GAGE HEIGHT ONLY	PERIOD FROM	PERIOD TO	ZERO ON GAGE	REF. DATUM
41 45 11	122 17 58	NW15 45N 4W	5910 E	10.66	12/22/64	28-NOV 51 δ APR 52-APR 55 SEP 56-DATE	28-NOV 51 δ APR 52-APR 55 SEP 56-DATE	1956 1965	1964	0.00	LOCAL

Station located S of Ball Mountain Road, 12 mi. NE of Montague, 16 mi. SW of Macdoel. Stage-discharge relationship affected by ice at times. Drainage area is 48.2 sq. mi.

δ - Irrigation season only.

TABLE B-3 (CONT)

DAILY MEAN DISCHARGE

(IN CUBIC FEET PER SECOND)

WATER YEAR	STATION NO.	STATION NAME
1969	F41540	WEAVER CREEK NEAR DOUGLAS CITY

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	0.8 *	3.7	16 E	26	136	170	288	129	75	17	4.2	0.9
2	0.9	12	16 E	28	121	168	255	125	72	17	3.7	0.7
3	0.9	8.3	16 E	37	109	166	211	121	71	16	3.7	0.6
4	1.0	6.3	17 E	56	103 *	149	187	112	70	15	3.4	0.7
5	1.2	7.3	17 E	67	105	149	181	116	65	15	3.7	0.7
6	1.3	6.0	17 E	75 *	107	151	153	140	61	14	3.7 *	0.8
7	1.3	5.6 *	17 E	86	91	145	136	168	53	14	3.7	0.6
8	1.5	6.0	17 E	91	169	138	130	181	49	14	3.4	0.7
9	1.7	9.0	19 #	65	283	132	129 *	202	49	13	3.2	0.5
10	1.7	7.7	389 *	50	270 *	119	129	215	46	12	3.0	0.4
11	2.1	9.9	187	51	696 *	112	136	220	44	11	3.0	0.5
12	3.4	16	78	731	509	114 *	153	206	42	11	2.8	0.6
13	3.7	9.4	98 *	1080 *	334	114	145	200	38	10	2.8	0.4
14	3.7	9.9	170	448	299	118	130	175	37	9.9	2.6	0.5
15	4.2	16	371	292	316	134	121	153	37	9.4	2.4	0.5
16	3.9	14	183	183	288	162	121	149	35	8.7	2.2	0.8
17	3.9	17	81	114 *	264	204	132	153	32	8.3	2.1	0.8
18	3.7	33	55	138	266	257	140	149	32	8.3	2.2	1.0
19	3.7	25 *	42	572	266	237	132	134	49	7.7	2.2	2.1
20	3.9	16	31	873	253	235	138	121	38	7.3	2.2	2.2
21	3.9	13 E	26	874	213	255	151	119 *	33	7.0	2.2	2.4
22	3.9	12 E	25	473	183	270	173	119	30	6.7	1.9	2.2
23	3.9 *	12 E	49	299 *	168	281	181	121	27	6.7	1.7	1.9 *
24	3.9	18 E	121	217	170	268	147	112	26	6.3	1.5	2.1
25	3.9	33 E	109	271	154 *	261	127	103	25	6.0	1.7	1.9
26	3.9	15 E	80	452	138	272	116	98	25	5.6	1.9	1.5
27	3.9	15 E	52	294	134	303 *	118	87	24 *	5.2	1.9	1.5
28	3.9	16 E	43	226	198	334	130	80	21	4.9	1.9	1.3
29	5.4	20 E	36	177		354	138	80	20	4.7	1.5	1.2
30	5.6	34 E	32	147		352	136 *	84	18	4.2	1.2	1.3
31	5.2		28	123		332		78		3.9	1.1	
MEAN	3.1	14.2	78.6	278	227	208	152	137	41.5	9.1	2.5	1.1
MAX.	5.6	34 E	389	1080	696	354	288	220	75	17	4.2	2.4
MIN.	0.8	3.7	16 E	26	91	112	116	78	18	3.9	1.1	0.4
AC. FT.	190	845	4836	17090	12580	12810	9053	8430	2467	595	156	66

E — ESTIMATED
NR — NO RECORD
* — DISCHARGE MEASUREMENT OR OBSERVATION OF FLOW MADE THIS DAY.
# — E AND *

WATER YEAR SUMMARY

MEAN DISCHARGE	MAXIMUM DISCHARGE	MAXIMUM GAGE HT.	MAXIMUM MO.	MAXIMUM DAY	MAXIMUM TIME	MINIMUM DISCHARGE	MINIMUM GAGE HT.	MINIMUM MO.	MINIMUM DAY	MINIMUM TIME	TOTAL ACRE FEET
95.5	1587	12.85	1	13	0300	0.4	5.54	9	10		69110

LOCATION			MAXIMUM DISCHARGE OF RECORD			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.&M.	CFS	GAGE HT.	DATE	DISCHARGE	GAGE HEIGHT ONLY	PERIOD FROM	PERIOD TO	ZERO ON GAGE	REF. DATU
40 40 15	122 56 30	SE36 33N 10W	3980 E	12.72	12/22/64	JAN 57-DATE	JAN 57-DATE	1957		0.00	LOCAL

Station located 0.2 mi. below State Highway 299 bridge, 1.2 mi. N of Douglas City, 4.2 mi. S of Weaverville. Tributary to Trinity River. Drainage area is 48.4 sq. mi. Station discontinued October 1, 1969.

TABLE B-3 (CONT)

DAILY MEAN DISCHARGE

(IN CUBIC FEET PER SECOND)

WATER YEAR	STATION NO.	STATION NAME
1969	F42100	NORTH FORK TRINITY RIVER NEAR HELENA

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	21 *	62	187	269	544	484	2320	1150	772	216	82 E	46	1
2	21	128	169	273	512	448	2010	1060	781	235	77 E	42	2
3	21	118	159	320	475	436	1660	1000	823	212	72 E	41	3
4	21	85	152	478	463 *	424	1380	918	852	198	68 E	40	4
5	21	89	204	618	463	415	1450	949	839	202	63 E	39	5
6	21	80	218	719 *	463	415	1300	1220	748	194	58 E	38	6
7	21	80 *	210	715	445	418	1120	1450	648	187	57 E	37	7
8	21	153	241	659	472	409	1080	1620	558	178	56 E	37	8
9	21	358	250 *	610	682	400	1080 *	1890	519	178	54 E	37	9
10	21	196	2690 *	547	644	379	1120	2060	533	187	53 E	34	10
11	40	171	1590	536	1350 *	361	1220	2020	499	184	51 #	34	11
12	137	289	878	978	1420	358 *	1430	1880	496	176	51	33	12
13	96	193	652 *	1660 *	1070	364	1370	1770	512	160	48	33	13
14	73	160	637	1190	883	409	1210	1470	499	154	48	32	14
15	63	154	1210	856	848	478	1140	1260	487	150	48	32	15
16	61	142	1010	675	806	603	1160	1260	481	135 E	47	32	16
17	60	216	675	572	727	698	1290	1360	451	128 E	45	32	17
18	56	706	530	519	678	856	1380	1310	436	124 E	44	36	18
19	51	499 *	460	823	648	878	1330	1080	564	128 E	43	38	19
20	58	325	433	2930	629	835	1330	954	466	126 E	43	37	20
21	58	254	361	4620	582	827	1450	990 *	397	120 E	42	39	21
22	49	305	350	2340	526	972	1770	1060	350	118 E	48	35	22
23	45 *	256	345	1490 *	499 E	1200	1900	1150	335	122 #	53	33	23
24	43	252	682	1040	475 E	1240	1340	1060	303	124 E	56	33	24
25	42	252	637	887	451 #	1240	1070	958	275	122 E	55	32	25
26	40	237	533	1420	442	1360	967	927	243	116 E	55	31	26
27	39	212	418	1200	409	1020 *	1030	865	220 *	110 E	52	30	27
28	38	193	361	985	451	1990	1230	723	206	104 E	52	30	28
29	56	189	350	823		2380	1290	776	196	97 E	50	30	29
30	97	191	315	652		2830	1210 *	865	204	92 E	50	30	30
31	84		287	578		2840		818		86 E	48		31
MEAN	48.2	218	555	1030	645	902	1355	1222	490	150	53.8	35.1	MEAN
MAX.	137	706	2690	4620	1420	2840	2320	2060	852	235	82 E	46	MAX.
MIN.	21	62	152	269	409	358	967	723	196	86 E	42	30	MIN.
AC. FT.	2867	12980	34110	63440	35820	55470	80600	75120	29140	9249 E	3310 E	2089	AC. FT.

E — ESTIMATED
NR — NO RECORD
* — DISCHARGE MEASUREMENT OR OBSERVATION OF FLOW MADE THIS DAY.
# — E AND *

WATER YEAR SUMMARY

MEAN DISCHARGE	MAXIMUM DISCHARGE	MAXIMUM GAGE HT.	MAXIMUM MO.	MAXIMUM DAY	MAXIMUM TIME	MINIMUM DISCHARGE	MINIMUM GAGE HT.	MINIMUM MO.	MINIMUM DAY	MINIMUM TIME	TOTAL ACRE FEET
558	5830	15.11	1	21	0100	21	5.73	10	1	2400	404,300

LOCATION			MAXIMUM DISCHARGE OF RECORD			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.&M.	CFS	GAGE HT.	DATE	DISCHARGE	GAGE HEIGHT ONLY	PERIOD FROM	PERIOD TO	ZERO ON GAGE	REF. DATUM
40 46 55	123 07 40	SW21 34N 11W	35800	27.93	12/22/64	JAN 57-DATE	JAN 57-DATE	1957		0.00	LOCAL

Station located 1.0 mi. above mouth, 0.6 mi. N of Helena. Stage-discharge relationship affected by ice at times. Drainage area is 151 sq. mi.

APPENDIX C

GROUND WATER MEASUREMENTS

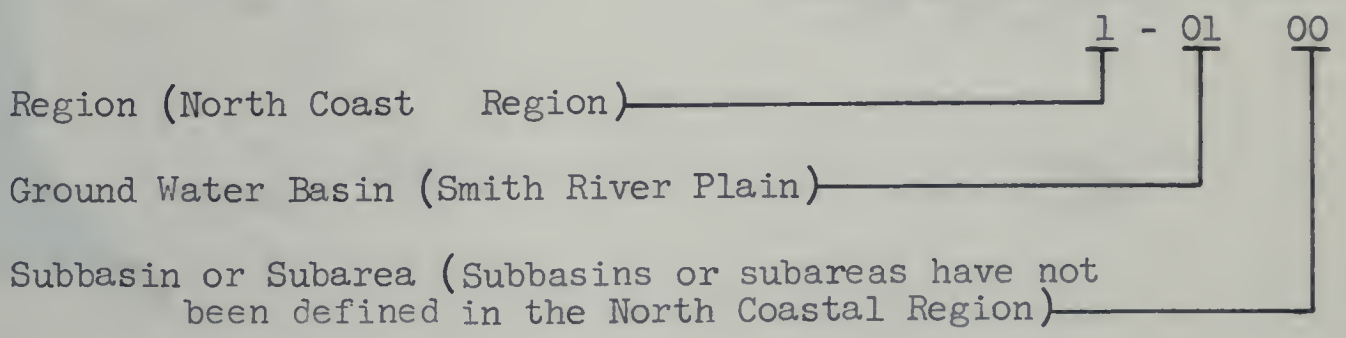
INTRODUCTION

This appendix contains ground water level measurements from 46 wells for the period October 1, 1968, through September 30, 1969. It also contains a table which summarizes the measurements. Wells in the network are continuously reviewed and, when conditions dictate, replacement wells are located and measured.

There are nine ground water basins in the North Coastal Region for which data are reported.

Two numbering systems are used by the Department to facilitate the processing of water level measurement data. The two systems are the Region and Basin Designation and the State Well Numbering System as described below.

The regions are those of the California Regional Water Quality Control Boards whose geographic areas are defined in Section 13200 of the Water Code. That portion of Northern California covered by this report is included in the North Coast Region. A decimal system of the form 0-00.00 has been selected according to geographic regions, ground water basins, and subbasins or subareas as follows:



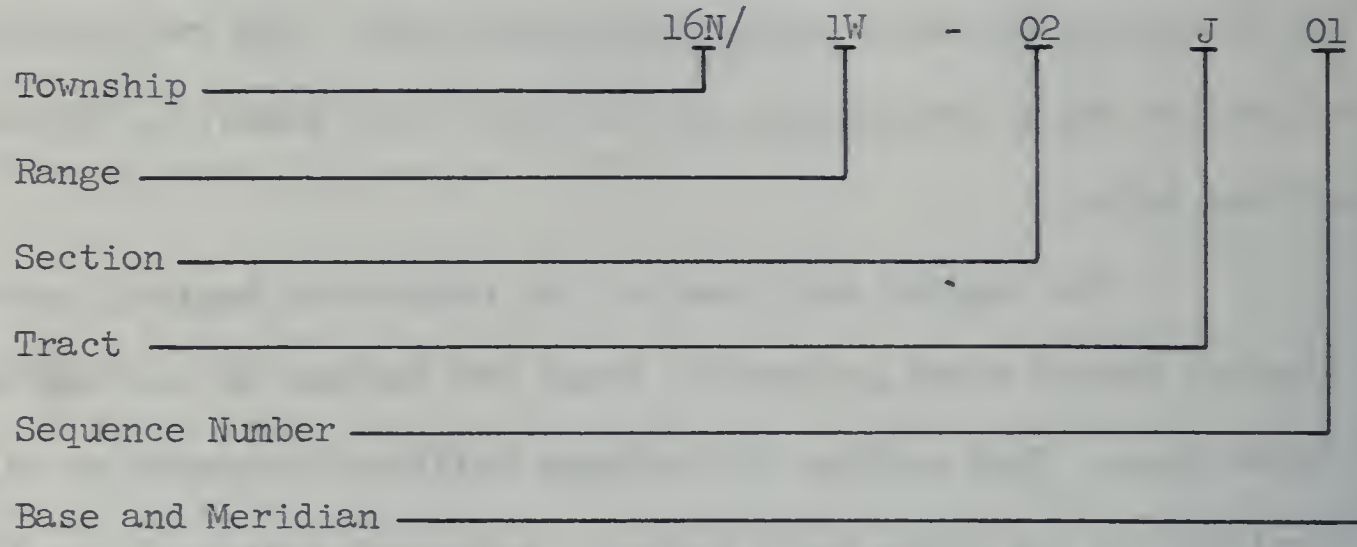
The State Well Numbering System is based on township, range, and section subdivisions of the Public Land Survey.

A section is divided into 40-acre tracts as follows:

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

Sequence numbers in a tract are generally assigned in chronological order.

The number of a well, assigned in accordance with this system, is referred to as the State Well Number, as illustrated below:



This number identifies and locates the well. In the example, the well is in Township 16 North, Range 1 West, Tract J of Section 2, located in the Humboldt Base and Meridian.

GROUND WATER BASINS, WATER LEVEL MEASUREMENTS

TABLE C-1

AVERAGE CHANGE OF GROUND WATER LEVELS
AND SUMMARY OF WELL MEASUREMENTS REPORTED

Ground Water Basin		Average Change Spring 1968 to Spring 1969 in feet	Measuring Agency	Number of Wells Reported		
Name	Number			Monthly 1968-69	Fall 1968	Spring 1969
ORTH COASTAL REGION						
Smith River Plain	1-01.00	+0.9	DWR		6	6
Butte Valley	1-03.00	+2.3	DWR		6	6
Shasta Valley	1-04.00	-0.6	DWR		5	6
Scott River Valley	1-05.00	+2.5	DWR		5	5
Mad River Valley	1-08.00	+0.8	DWR		2	2
Eel River Valley	1-10.00	-1.3	DWR		4	4
Round Valley	1-11.00	+0.2	DWR		6	6
Laytonville Valley	1-12.00	+2.1	DWR		4	4
Little Lake Valley	1-13.00	0.0	DWR		5	6

WR - Department of Water Resources

TABLE C-2 GROUND WATER LEVELS AT WELLS

An explanation of the column headings and the code symbols follows:

State Well Number - Refer to the explanation presented in the Introduction.

Ground Surface Elevation - The numbers in this column are the elevation in feet above mean sea level (USGS datum) of the ground surface at the well. Elevations are usually taken from topographic maps and the accuracy is controlled by topographic standards.

Date - The date shown in the column is the date when the depth measurement given in the next column was made.

Ground Surface to Water Surface - This is the measured depth in feet from the ground surface to the water surface in the well; some of the depth measurements in the column may be preceded by a number in parentheses to indicate a questionable measurement. The code applicable to these "questionable measurements" is as follows:

(1) Pumping
(2) Nearby pump operating
(3) Casing leaking or wet
(4) Pumped recently
(5) Air or pressure gage measurement
(6) Other
(7) Recharge operation at or near well
(8) Oil in casing
(9) Caved or deepened

When a measurement was attempted, but could not be obtained, then only a number in parentheses is shown in the column. The code applicable to these "no measurements" is as follows:

(1) Pumping
(2) Pump house locked
(3) Tape hung up
(4) Cannot get tape in casing
(5) Unable to locate well
(6) Well has been destroyed
(7) Special
(8) Casing leaking or wet
(9) Temporarily inaccessible
(0) Measurements discontinued

The words FLOW and DRY are shown in this column to indicate a flowing or dry well, respectively. A minus sign preceding the number in this column indicates that the static water level in the well is this distance in feet above the ground surface.

Water Surface Elevation - This is the elevation in feet above mean sea level (USGS datum) of the water surface in the well. It was derived by subtraction of the depth measurement from the ground surface elevation.

Agency Supplying Data - Each of these numbers is the code number for the agency supplying data for that measurement. The Department of Water Resources is the sole agency supplying ground water level measurement data for this report. It has been assigned an agency code number of 5050.

TABLE C-2

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GROUND SURFACE TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
SMITH RIVER PLAIN 1-01.00					
16N/01W-02J01 H	127.0	10-17-68	21.2	105.8	5050
		4-08-69	16.5	110.5	5050
16N/01W-17K01 H	48.0	10-17-68	23.2	24.8	5050
		4-08-69	13.0	35.0	5050
17N/01W-02P01 H	31.0	10-17-68	21.0	10.0	5050
		4-08-69	17.5	13.5	5050
17N/01W-03E01 H	14.0	10-17-68	12.9	1.1	5050
		4-08-69	9.9	4.1	5050
17N/01W-15M02 H	21.0	10-17-68	16.0	5.0	5050
		4-08-69	9.0	12.0	5050
17N/01W-26P01 H	38.0	10-17-68	15.4	22.6	5050
		4-08-69	(7)		5050
BUTTE VALLEY 1-03.00					
46N/01E-06N01 M	4242.0	10-01-68	24.7	4217.3	5050
		4-07-69	20.3	4221.7	5050
46N/02W-25R02 M	4256.0	10-01-68	35.4	4220.6	5050
		4-07-69	24.9	4231.1	5050
47N/01W-14B01 M	4234.0	10-01-68	10.9	4223.1	5050
		4-07-69	9.4	4224.6	5050
47N/01W-17R01 M	4240.0	10-01-68	10.1	4229.9	5050
		4-07-69	(9)		5050
47N/01W-19L01 M	4238.0	10-01-68	6.5	4231.5	5050
		4-07-69	4.0	4234.0	5050
47N/01W-27B01 M	4233.0	10-01-68	10.0	4223.0	5050
		4-07-69	7.9	4225.1	5050
48N/01W-26N01 M	4244.0	10-01-68	(1)		5050
		4-07-69	8.0	4236.0	5050
SHASTA VALLEY 1-04.00					
42N/05W-20J01 M	2882.0	9-30-68	2.9	2879.1	5050
		4-07-69	5.1	2876.9	5050
42N/06W-10J01 M	2835.0	9-30-68	15.7	2819.3	5050
		4-07-69	5.0	2830.0	5050
43N/06W-22A01 M	2665.0	9-30-68	(1)		5050
		4-07-69	(1)		5050
44N/05W-34H01 M	2637.0	10-01-68	24.7	2612.3	5050
		4-07-69	27.8	2609.2	5050
44N/06W-10F01 M	2537.0	9-30-68	18.0	2519.0	5050
		4-07-69	25.5	2511.5	5050
45N/05W-29B01 M	2635.0	10-01-68	18.3	2616.7	5050
		4-07-69	(6)		5050
45N/06W-19E01 M	2538.0	10-01-68	21.9	2516.1	5050
		4-07-69	18.5	2519.5	5050
SCOTT RIVER VALLEY 1-05.00					
42N/09W-02A02 M	2746.0	9-30-68	12.5	2733.5	5050
		4-07-69	8.0	2738.0	5050
42N/09W-27N01 M	2930.0	9-30-68	8.4	2921.6	5050
		4-07-69	2.4	2927.6	5050
43N/09W-23F01 M	2728.0	9-30-68	6.5	2721.5	5050
		4-07-69	3.5	2724.5	5050
43N/09W-24F01 M	2735.0	9-30-68	13.1	2721.9	5050
		4-07-69	5.5	2729.5	5050
44N/09W-28P01 M	2711.0	9-30-68	22.0	2689.0	5050
		4-07-69	7.3	2703.7	5050

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GROUND SURFACE TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
MAD RIVER VALLEY 1-08.00					
06N/01E-06H01 H	151.0	10-15-68	11.5	139.5	5050
		4-09-69	2.8	148.2	5050
06N/01E-29P01 H	25.0	10-15-68	8.6	16.4	5050
		4-09-69	6.0	19.0	5050
EEL RIVER VALLEY 1-10.00					
02N/01W-08B01 H	34.0	10-15-68	21.8	12.2	5050
		4-09-69	13.7	20.3	5050
03N/01W-18D01 H	15.0	10-15-68	2.7	12.3	5050
		4-09-69	1.0	14.0	5050
03N/01W-34J01 H	53.0	10-15-68	35.5	17.5	5050
		4-09-69	30.6	22.4	5050
03N/02W-26R01 H	12.0	10-15-68	10.5	1.5	5050
		4-09-69	6.0	6.0	5050
ROUND VALLEY 1-11.00					
22N/12W-04B01 M	1351.0	10-16-68	14.5	1336.5	5050
		4-10-69	6.4	1344.6	5050
22N/12W-06L03 M	1370.0	10-16-68	0.3	1369.7	5050
		4-10-69	-11.5	1381.5	5050
22N/13W-12R01 M	1400.0	10-16-68	27.5	1372.5	5050
		4-10-69	5.7	1394.3	5050
23N/12W-31N01 M	1388.0	10-16-68	6.6	1381.4	5050
		4-10-69	-8.5	1396.5	5050
23N/13W-36C03 M	1410.0	10-16-68	27.0	1383.0	5050
		4-10-69	9.7	1400.3	5050
23N/13W-36Q01 M	1403.0	10-16-68	18.4	1384.6	5050
		4-10-69	0.5	1402.5	5050
LAYTONVILLE VALLEY 1-12.00					
21N/14W-30M01 M	1688.0	10-16-68	15.8	1672.2	5050
		4-10-69	3.7	1684.3	5050
21N/15W-01L02 M	1682.0	10-16-68	18.5	1663.5	5050
		4-10-69	4.8	1677.2	5050
21N/15W-12M02 M	1630.0	10-16-68	17.0	1613.0	5050
		4-10-69	5.0	1625.0	5050
21N/15W-24A01 M	1653.0	10-16-68	12.5	1640.5	5050
		4-10-69	1.7	1651.3	5050
LITTLE LAKE VALLEY 1-13.00					
18N/13W-08L01 M	1340.0	10-16-68	9.2	1330.8	5050
		4-10-69	0.8	1339.2	5050
18N/13W-16M01 M	1380.0	10-16-68	(0)		5050
18N/13W-17J01 M	1370.0	10-16-68	24.4	1345.6	5050
		4-10-69	18.4	1351.6	5050
18N/13W-18E01 M	1365.0	10-16-68	31.2	1333.8	5050
		4-10-69	25.4	1339.6	5050
18N/13W-20H03 M	1385.0	10-16-68	(7)		5050
		4-10-69	4.0	1381.0	5050
19N/13W-32F01 M	1347.0	10-16-68	14.5	1332.5	5050
		4-10-69	6.0	1341.0	5050
19N/13W-32L02 M	1350.0	10-16-68	13.5	1336.5	5050
		4-10-69	8.5	1341.5	5050

APPENDIX D

SURFACE WATER QUALITY

INTRODUCTION

This appendix presents surface water quality data collected during the period from October 1, 1968, through September 30, 1969. The data were collected from 27 stream stations in the North Coastal area.

At the time of field sampling, dissolved oxygen, pH, and temperature measurements are made and gage height and time are noted. Comments on local conditions are noted in field books which are available in the files of the Department of Water Resources. The mineral constituents were determined in accordance with methods described in "Standard Methods for the Examination of Water and Waste Water", prepared and published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, 12th Edition, 1965. In some cases, the methods used were those presented in the U. S. Geological Survey Water Supply Paper 1454, "Methods for Collection and Analysis of Water Samples", 1960. The analysis for trace elements is in accordance with the U. S. Geological Survey Water-Supply Paper 1540-B, "Concentration Method for the Spectro-Chemical Determination of Minor Elements in Water".

Each station in this appendix has been assigned a station number. The numbering system is described in Appendix B, "Surface Water Measurements". A sequential number (formerly employed) follows each station name for reference.

INDEX TO SAMPLING STATIONS

F01300.00 Smith River near Crescent City (3a)

F21050.00 Shasta River near Yreka (1a)

F25250.00 Scott River near Fort Jones (1b)

F31100.00 Klamath River near Klamath (3)

F31220.01 Klamath River at Orleans (2c)

F31430.00 Klamath River near Seiad Valley (2b)

F31470.00 Klamath River above Hamburg Reservoir Site (1c)

F31600.00 Klamath River below Iron Gate Dam (1f)

F34100.00 Salmon River at Somesbar (2a)

F41090.00 Trinity River near Hoopa (4)

F41376.00 Trinity River near Burnt Ranch (4b)

F41640.00 Trinity River at Lewiston (4a)

F51100.00 Mad River near Arcata (6a)

F55100.00 Redwood Creek at Orick (3b)

F61100.00 Eel River at Scotia (6)

F61154.50 Eel River at South Fork (5)

F61329.50 Eel River above Outlet Creek (5d)

F61350.00 Outlet Creek near Longvale (5b)

F63010.00 Eel River, Middle Fork, at Dos Rios (5c)

F63050.00 Mill Creek near Covelo (5e)

F63105.00 Williams Creek near Covelo (5f)

F63120.00 Eel River, Middle Fork, above Black Butte River (5g)

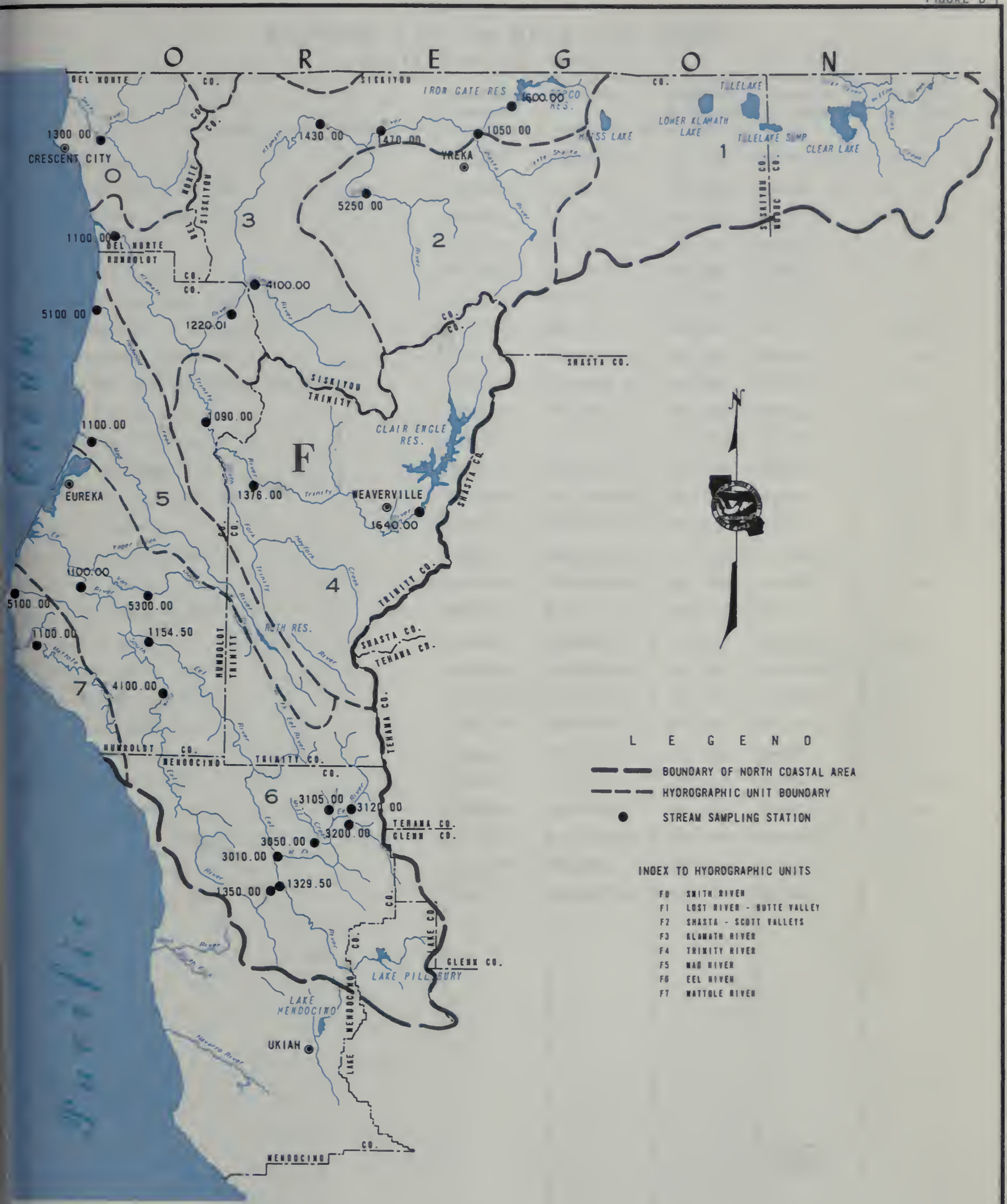
F63200.00 Black Butte River near Covelo (5h)

F64100.00 Eel River, South Fork, near Miranda (7)

F65300.00 Van Duzen River near Bridgeville (5a)

F71100.00 Mattole River near Petrolia (7a)

F75100.00 Bear River Near Capetown (7b)



SURFACE WATER SAMPLING STATIONS

TABLE D-1
SAMPLING STATION DATA AND INDEX
North Coastal Area

Station	Station Number	Location *	Beginning of Record	Frequency of Sampling	Analyses on Page
Bear River near Capetown (7b)	F75100.00	01N/03W-13 H	MAY 1964	Semiannually	56, 58
Black Butte River near Covelo (5h)	F63200.00	23N/11W-28 M	NOV. 1964	Monthly	54, 58
Eel River above Outlet Creek (5d)	F61329.50	21N/13W-31 M	APR. 1958	Monthly	51, 57, 58
Eel River at Scotia (6)	F61100.00	02N/01E-31 H	APR. 1951	Monthly	50, 57, 58
Eel River at South Fork (5)	F61154.50	01S/02E-26 H	APR. 1951	Monthly	51, 58
Eel River, Middle Fork, above Black Butte River (5g)	F63120.00	23N/11W-28 M	NOV. 1964	Monthly	54, 58
Eel River, Middle Fork, at Dos Rios (5c)	F63010.00	21N/13W-06 M	APR. 1958	Monthly	52, 57, 58
Eel River, South Fork, near Miranda (7)	F64100.00	03S/04E-30 H	APR. 1951	Monthly	55, 57, 59
Klamath River above Hamburg Reservoir Site (1c)	F31470.00	46N/10W-14 M	DEC. 1958	Bimonthly	47, 59
Klamath River at Orleans (2c)	F31220.01	11N/06E-31 H	JAN. 1964	Monthly	46, 57, 59
Klamath River below Iron Gate Dam (1f)	F31600.00	47N/05W-17 M	DEC. 1961	Monthly	48, 57, 59
Klamath River near Klamath (3)	F31100.00	13N/01E-24 H	APR. 1951	Monthly	46, 57, 59
Klamath River near Seiad Valley (2b)	F31430.00	46N/12W-03 M	DEC. 1958	Monthly	47, 57, 59
Mad River near Arcata (6a)	F51100.00	06N/01E-15 H	NOV. 1958	Monthly	49, 57, 59
Mattole River at Petrolia (7a)	F71100.00	02S/02W-11 H	JAN. 1959	Semiannually	56, 60
Mill Creek near Covelo (5e)	F63050.00	22N/12W-22 M	FEB. 1965	Monthly	53, 60
Outlet Creek near Longvale (5b)	F61350.00	20N/14W-01 M	MAY 1958	Monthly	52, 60
Redwood Creek at Orick (3b)	F55100.00	10N/01E-04 H	NOV. 1958	Monthly	50, 60
Salmon River at Somesbar (2a)	F34100.00	11N/06E-02 H	NOV. 1958	Semiannually	48, 60
Scott River near Fort Jones (1b)	F25250.00	44N/10W-29 M	DEC. 1958	Bimonthly	46, 60
Shasta River near Yreka (1a)	F21050.00	46N/07W-24 M	DEC. 1958	Monthly	45, 60
Smith River near Crescent City (3a)	F01300.00	16N/01E-10 H	APR. 1951	Monthly	45, 60
Trinity River near Hoopa (4)	F41090.00	08N/05E-31 H	APR. 1951	Monthly	48, 57, 61
Trinity River at Lewiston (4a)	F41640.00	33N/08E-17 M	APR. 1951	Bimonthly	49, 61
Trinity River near Burnt Ranch (4b)	F41376.00	05N/07E-19 H	APR. 1958	Bimonthly	49, 61
Van Duzen River near Bridgeville (5a)	F65300.00	01N/02E-12 H	APR. 1958	Monthly	55, 61
Williams Creek near Covelo (5f)	F63105.00	23N/12W-24 M	NOV. 1964	Monthly	53, 61

* H = Humboldt Base and Meridian
M = Mount Diablo Base and Meridian

TABLE D-2 MINERAL ANALYSES OF SURFACE WATER

An explanation of column headings follows:

The LAB and SAMPLER agency codes are as follows:

5000 - U. S. Geological Survey
5050 - California Department of Water Resources

TIME - Pacific Standard Time on a 24-hour clock.

GH - The instantaneous gage height in feet above an established datum.

Q - The instantaneous discharge in cubic feet per second (cfs). "E" indicates the value has been estimated.

DO - The dissolved oxygen content in milligrams per liter.

SAT - The percent saturation.

TEMP - Water temperature in degrees Fahrenheit at the time of field sampling. Water temperature in degrees Celsius is computed from degrees Fahrenheit.

PH LAB & FIELD - Measure of acidity or alkalinity of water.

EC LAB - The electrical conductance in micromhos at 25° Celsius.

EC FIELD - The electrical conductance in micromhos at temperature when sampled.

TDS - Gravimetric determination of total dissolved solids at 180° Celsius.

SUM - Total dissolved solids determined by addition of analyzed constituents.

TH - Total hardness.

NCH - Non-carbonate hardness.

The MINERAL CONSTITUENTS are as follows:

B	- Boron	K	- Potassium
CA	- Calcium	MG	- Magnesium
CL	- Chloride	NA	- Sodium
CO_3	- Carbonate	NO_3	- Nitrate
F	- Fluoride	SIO_2	- Silica
HCO_3	- Bicarbonate	SO_4	- Sulfate

TABLE D-2

MINERAL ANALYSIS OF SURFACE WATER

DATE TIME	LAB SAMPLER	G.H. Q	DO SAT	TEMP		PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	MILLIGRAMS PER LITER: F	B	SIO2	TDS SUM	TH NCH
				FD 1300.00				SMITH RIVER NEAR CRESCENT CITY (34)														
10/01/68	5050	6.63	10.3	60	F	7.8	161	--	--	2.8	--	0.0	88	--	2.9	--	--	0.0	--	--	81
0930	5050	335	104	16	C	8.0				.12			1.44		.08						9
										7			89		4						
11/12/68	5050	17.36	12.8	54	F	7.8	101	--	--	1.7	--	0.0	58	--	2.2	--	--	0.0	--	--	49
0830	5050	18000	113	10	C	7.7				.07			.95		.06						2
										6			94		5						
12/03/68	5050	11.57	13.5	46	F	8.1	105	--	--	1.8	--	0.0	61	--	2.2	--	--	0.0	--	--	63
0740	5050	3800	113	8	C	7.6				.08			1.00		.06						13
										7			95		5						
01/21/69	5050	18.69	13.3	45	F	7.8	84	--	--	2.4	--	0.0	48	--	1.7	--	--	0.0	--	--	44
0745	5050	21900	110	7	C	7.3				.10			.79		.05						5
										11			94		5						
02/04/69	5050	12.12	13.5	43	F	7.9	89	--	--	1.9	--	0.0	50	--	2.1	--	--	0.0	--	--	43
0720	5050	5400	109	6	C	7.3				.08			.82		.06						2
										8			92		6						
03/03/69	5050	11.87	13.1	46	F	7.3	89	--	--	1.4	--	0.0	48	--	1.9	--	--	0.0	--	--	47
1610	5050	4400	110	8	C	7.9				.06			.79		.05						8
										6			88		5						
04/08/69	5050	11.20	13.4	45	F	7.8	90	--	--	1.4	--	0.0	52	--	1.5	--	--	0.0	--	--	45
0755	5050	3540	111	7	C	7.3				.06			.85		.04						3
										6			94		4						
05/13/69	5050	11.14	12.6	51	F	7.6	70	4.7	5.7	1.2	0.2	0.0	39	4.0	2.0	0.0	--	0.0	--	38	35
0640	5050	3680	113	11	C	7.3		.23	.47	.05	.01		.64	.08	.06					37	3
								30	62	7	1		82	10	8						
06/10/69	5050	8.45	11.7	57	F	7.8	101	--	--	1.4	--	0.0	58	--	3.2	--	--	0.0	--	--	49
0745	5050	1120	114	14	C	7.6				.06			.95		.09						2
										5			94		8						
07/15/69	5050	7.11	9.5	64	F	7.9	134	--	--	2.2	--	0.0	79	--	2.4	--	--	0.0	--	--	69
0640	5050	427	100	18	C	7.8				.10			1.30		.07						4
										7			97		5						
08/05/69	5050	6.74	9.6	64	F	8.2	146	--	--	2.2	--	0.0	84	--	2.6	--	--	0.0	--	--	73
0700	5050	323	101	18	C	7.8				.10			1.38		.07						4
										6			94		4						
09/09/69	5050	6.38	9.1	64	F	8.2	160	12	12	2.2	0.3	0.0	89	4.9	3.0	0.0	--	0.0	--	75	79
0655	5050	216	96	18	C	7.5		.60	.99	.10	.01		1.46	.10	.08					78	6
								35	58	6	1		89	6	5						
				F2 1050.00				SHASTA RIVER NEAR YREKA (14)														
10/09/68	5050	3.08	10.8	48	F	8.5	627	--	--	50	--	14	335	--	29	--	--	0.5	--	--	251
0820	5050	89	93	9	C	8.2				2.18		.47	5.49		.82						0
										34		7	87		13						
11/13/68	5050	3.42	12.7	48	F	8.6	530	--	--	41	--	14	269	--	26	--	--	0.5	--	--	202
1200	5050	194	109	9	C	8.4				1.78		.47	4.41		.73						0
										33		8	83		13						
12/10/68	5050	3.48	11.6	48	F	8.5	497	--	--	38	--	6.0	266	--	22	--	--	0.5	--	--	189
1200	5050	188	100	9	C	8.4				1.65		.20	4.36		.62						0
										33		4	87		12						
01/20/69	5050	5.53	12.4	39	F	8.1	392	--	--	26	--	0.0	205	--	15	--	--	0.3	--	--	152
1300	5050	1290	94	4	C	8.1				1.13			3.36		.42						0
										28			85		10						
02/17/69	5050	3.82	12.1	43	F	8.4	516	--	--	28	--	5.0	281	--	19	--	--	0.3	--	--	218
1100	5050	309	97	6	C	8.3				1.22		.17	4.61		.54						0
										23		3	89		10						
03/10/69	5050	3.58	12.5	45	F	8.3	513	--	--	30	--	0.0	291	--	19	--	--	0.4	--	--	216
1240	5050	231	103	7	C	8.4				1.31			4.77		.54						0
										25			92		10						
04/08/69	5050	3.84	10.6	53	F	8.0	496	--	--	31	--	0.0	285	--	18	--	--	0.2	--	--	207
1240	5050	309	98	12	C	8.3				1.35			4.67		.51						0
										27			94		10						
05/13/69	5050	3.52	9.0	64	F	8.1	505	29	32	34	3.5	0.0	294	8.1	20	0.8	--	0.5	--	307	203
0715	5050	206	95	18	C	8.4		1.45	2.63	1.48	.09		4.82	.17	.56	.01				272	0
								26	47	26	2		87	3	10						
06/09/69	5050	3.16	9.2	65	F	8.0	554	--	--	38	--	0.0	336	--	22	--	--	0.4	--	--	240
1350	5050	89	99	18	C	8.4				1.65			5.51		.62						0
										29			99		11						
07/07/69	5050	2.97	9.5	73	F	8.6	558	--	--	4.1	--	2.0	333	--	24	--	--	0.4	--	--	236
1250	5050	67	111	23	C	8.3				.18		.07	5.46		.68						0
										3		1	97		12						
08/12/69	5050	2.68	9.8	75	F	8.5	639	--	--	50	--	8.0	373	--	30	--	--	0.6	--	--	270
1245	5050	25	117	24	C	8.4				2.18		.27	6.12		.85						0
										34		4	95		13						
09/15/69	5050	2.90	9.9	67	F	8.7	617	42	37	50	4.2	20	338	5.8	28	3.8	--	0.6	--	326	256
1330	5050	53	108	19	C	8.4		2.10	3.04	2.18	.11	.67	5.54	.12	.79	.06				357	0
								28	41	29	1	9	77	2	11	1					

TABLE D-2 (CONTINUED)

MINERAL ANALYSIS OF SURFACE WATER

DATE TIME	LAB SAMPLE	G.H. U	DO SAT	TEMP		PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	TDS SUM	TH NCH
				F2 5250.00				SCOTT RIVER NEAR FORT JONES (18)													
10/09/68	5050	4.04	11.8	53	F	8.2	300	--	--	5.8	--	0.0	179	--	5.0	--	--	0.0	--	--	157
1100	5050	56	109	12	C	7.9				.25			2.94		.14						10
										8			98		4						
11/14/68	5050	4.54	10.7	43	F	8.3	196	--	--	3.4	--	0.0	117	--	2.7	--	--	0.0	--	--	102
0755	5050	138	86	6	C	7.3				.15			1.92		.08						6
										7			97		4						
01/20/69	5050	9.25	12.0	37	F	8.0	151	--	--	2.7	--	0.0	84	--	2.0	--	--	0.0	--	--	86
1635	5050	2450	88	3	C	7.7				.12			1.38		.06						17
										7			91		3						
03/10/69	5050	6.64	12.7	40	F	8.0	234	--	--	3.1	--	0.0	140	--	2.0	--	--	0.0	--	--	121
1120	5050	67	98	4	C	7.7				.13			2.30		.06						6
										5			98		2						
05/12/69	5050	10.58	10.5	54	F	7.4	85	7.8	5.2	1.4	0.4	0.0	48	1.2	1.6	0.9	--	0.0	--	60	41
1235	5050	3940	98	12	C	7.4		.39	.43	.06	.01		.79	.02	.05	.01				42	2
								44	48	7	1		91	2	6	1					
07/08/69	5050	5.92	9.8	59	F	8.3	228	--	--	3.7	--	0.0	134	--	2.7	--	--	0.0	--	--	123
0730	5050	258	97	15	C	7.7				.16			2.20		.08						13
										7			96		3						
09/16/69	5050	5.23	10.5	57	F	8.3	276	31	13	6.6	0.4	0.0	157	5.4	6.5	1.0	--	0.0	--	142	130
0925	5050	36	102	14	C	7.9		1.55	1.07	.29	.01		2.57	.11	.18	.02				141	2
								53	37	10			89	4	6	1					
				F3 1100.00				KLAMATH RIVER NEAR KLAMATH (3)													
10/01/68	5050	4.62	9.2	63	F	7.9	234	21	10	12	2.0	0.0	121	16	5.2	0.3	0.2	0.1	17	--	94
1045	5050	2360	96	17	C	8.1		1.05	.82	.52	.05		1.98	.33	.15					143	0
								43	34	21	2		80	13	6						
11/12/68	5050	8.77	11.2	54	F	7.6	137	13	6.3	5.1	1.0	0.0	67	10	2.2	1.0	0.1	0.0	13	--	58
1030	5050	16500	105	12	C	7.7		.65	.52	.22	.03		1.10	.21	.06	.02				85	3
								46	37	15	2		79	15	4	1					
12/03/68	5050	6.97	12.6	45	F	8.1	166	16	7.6	6.9	1.0	0.0	82	14	3.5	1.0	0.2	0.0	16	--	72
0855	5050	11400	104	7	C	8.2		.80	.62	.30	.03		1.34	.29	.10	.02				106	5
								46	35	17	2		77	17	6	1					
01/20/69	5050	17.25	12.7	43	F	8.0	123	14	5.0	3.1	0.8	0.0	68	7.0	1.0	1.1	0.1	.02	13	--	56
1540	5050	71300	102	6	C	8.2		.70	.41	.13	.02		1.12	.15	.03	.02				78	0
								56	33	10	2		85	11	2	2					
02/03/69	5050	13.11	12.8	44	F	7.9	155	16	7.1	4.8	0.9	0.0	81	9.0	1.5	1.4	0.0	0.0	16	86	69
1425	5050	34600	104	7	C	7.4		.80	.58	.21	.02		1.33	.19	.04	.02				96	3
								50	36	13	1		84	12	3	1					
03/03/69	5050	12.21	12.8	46	F	7.4	163	17	7.4	5.9	0.9	0.0	88	10	1.3	1.4	0.1	0.0	17	--	73
1500	5050	26300	107	8	C	7.6		.85	.61	.26	.02		1.44	.21	.04	.02				104	1
								49	35	15	1		84	12	2	1					
04/08/69	5050	14.58	12.2	49	F	7.7	157	15	7.0	6.6	1.3	0.0	80	8.0	2.1	2.0	0.1	0.0	17	--	66
0930	5050	38000	107	9	C	7.7		.75	.58	.29	.03		1.31	.17	.06	.03				98	1
								45	35	18	2		83	11	4	2					
05/13/69	5050	15.83	11.8	55	F	7.7	91	9.3	4.0	2.3	0.6	0.0	47	3.0	0.8	1.2	0.1	0.0	11	--	40
0915	5050	45400	112	13	C	7.3		.46	.33	.10	.02		.77	.06	.02	.02				55	2
								51	36	11	2		89	7	2	2					
06/10/69	5050	9.74	10.6	59	F	7.8	112	11	5.0	3.0	0.7	0.0	59	5.0	1.1	0.1	0.1	.03	13	--	48
0930	5050	13000	105	15	C	7.4		.55	.41	.13	.02		.97	.10	.03					68	0
								50	37	12	2		88	9	3						
07/15/69	5050	7.17	8.9	68	F	8.0	166	17	7.1	5.1	1.1	0.0	87	7.0	2.6	0.0	0.1	.05	13	--	72
0910	5050	4200	98	20	C	7.9		.85	.58	.22	.03		1.43	.15	.07					96	1
								51	35	13	2		87	9	4						
08/05/69	5050	6.19	8.9	68	F	8.1	197	19	8.2	8.1	1.5	0.0	101	9.0	3.4	0.0	0.1	.12	13	--	81
0810	5050	3200	98	20	C	8.9		.95	.67	.35	.04		1.66	.19	.10					112	0
								47	33	17	2		85	10	5						
09/09/69	5050	6.00	8.7	68	F	7.8	241	21	10	15	2.2	0.0	114	22	5.8	0.0	0.1	.10	18	142	94
0905	5050	2820	96	20	C	7.8		1.05	.82	.65	.06		1.87	.46	.16					150	1
								41	32	25	2		75	18	6						
				F3 1220.01				KLAMATH RIVER AT ORLEANS (2C)													
11/11/68	5050	6.37	11.0	55	F	7.9	169	--	--	9.4	--	0.0	86	--	3.9	--	--	0.1	--	--	66
1430	5050	4100	104	13	C	7.6				.41			1.41		.11						0
										24			83		6						
12/02/68	5050	5.35	13.3	44	F	8.2	186	--	--	11	--	0.0	93	--	4.3	--	--	0.0	--	--	80
1515	5050	4320	103	7	C	8.0				.48			1.53		.12						4
										25			82		6						
02/03/69	5050	9.35	13.8	41	F	8.0	176	--	--	8.5	--	0.0	91	--	3.1	--	--	0.0	--	--	82
1000	5050	12500	108	5	C	7.5				.37			1.49		.09						8
										21			84		5						
03/03/69	5050	8.67	13.7	44	F	7.4	193	--	--	9.3	--	0.0	97	--	3.4	--	--	0.0	--	--	87
1115	5050	9630	112	7	C	7.9				.40			1.59		.10						8
										20			82		5						

TABLE D-2 (CONTINUED)

MINERAL ANALYSIS OF SURFACE WATER

DATE TIME	LAB SAMPLER	G.H. Q	DO SAT	TEMP		PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	MILLIGRAMS PER LITER TDS SUM	TH NCH
			F3 1220.01					KLAMATH RIVER AT ORLEANS (2C) CONTINUED													
04/07/69	5050	11.75	13.2	48	F	7.6	182	--	--	10	--	0.0	85	--	2.7	--	--	0.0	--	--	68
1225	5050	19200	114	9	C	7.7				.44			1.39		.08						0
										24			76		4						
05/12/69	5050	14.04	12.6	54	F	7.4	80	7.5	4.2	2.4	1.0	0.0	43	3.3	1.2	0.4	--	0.0	--	44	36
1240	5050	29200	118	12	C	7.3		.37	.35	.10	.03		.71	.07	.03	.01				41	1
								44	41	12	4		87	9	4	1					
06/09/69	5050	7.89	11.0	60	F	7.7	100	--	--	3.6	--	0.0	54	--	1.7	--	--	0.0	--	--	43
1225	5050	9800	111	16	C	8.0				.16			.89		.05						0
										16			89		5						
07/14/69	5050	3.65	9.3	70	F	7.8	159	--	--	6.6	--	0.0	90	--	3.1	--	--	0.0	--	--	70
1245	5050	2750	105	21	C	8.0				.29			1.48		.09						0
										18			93		5						
08/04/69	5050	2.88	10.3	72	F	8.2	194	--	--	11	--	0.0	101	--	4.5	--	--	0.1	--	--	76
1210	5050	1920	119	22	C	8.2				.48			1.66		.13						0
										24			85		6						
09/08/69	5050	2.72	10.0	71	F	7.7	255	19	9.1	20	2.5	0.0	112	26	6.2	0.0	--	0.1	--	141	85
1245	5050	1370	115	22	C	8.1		.95	.75	.87	.06		1.84	.54	.17					138	0
								36	29	33	2		72	21	7						
			F3 1430.00					KLAMATH RIVER NEAR SEIAD VALLEY (2B)													
11/13/68	5050		12.2	49	F	8.3	234	--	--	17	--	0.0	117	--	6.9	4.0	--	0.1	--	--	82
1525	5050	2080	107	9	C	8.0				.74			1.92		.19	.06					0
										31			82		8	?					
12/10/68	5050		11.4	46	F	7.9	226	--	--	16	--	0.0	108	--	6.0	4.0	--	0.1	--	--	86
1400	5050	4040	96	8	C	7.7				.70			1.77		.17	.06					0
										30			78		7	?					
01/20/69	5050		13.0	38	F	8.1	218	--	--	13	--	0.0	112	--	5.7	3.6	--	0.0	--	--	99
1510	5050	6640	97	3	C	7.6				.57			1.84		.16	.06					7
										26			84		7	?					
02/17/69	5050		12.4	42	F	8.1	236	--	--	14	--	0.0	120	--	4.9	4.5	--	0.0	--	--	98
1305	5050	6050	98	6	C	7.8				.61			1.97		.14	.07					0
										25			83		5	?					
03/10/69	5050		13.0	43	F	7.6	254	--	--	13	--	0.0	132	--	5.0	3.7	--	0.1	--	--	105
1530	5050	3440	105	6	C	7.9				.57			2.16		.14	.06					0
										22			85		5	?					
04/08/69	5050		11.4	51	F	7.5	211	--	--	13	--	0.0	93	--	3.4	3.6	--	0.0	--	--	78
1400	5050	11000	102	11	C	8.2				.57			1.53		.10	.06					2
										27			72		4	?					
05/12/69	5050		10.8	58	F	7.5	122	10	6.3	5.1	0.7	0.0	64	6.4	4.1	0.9	--	0.0	--	80	51
1345	5050	9400	106	14	C	8.0		.50	.52	.22	.02		1.05	.13	.12	.01				65	0
								40	41	17	2		80	10	9	1					
06/09/69	5050		10.3	61	F	7.8	150	--	--	7.0	--	0.0	80	--	3.8	0.8	--	0.1	--	--	61
1625	5050	3980	105	16	C	7.7				.30			1.31		.11	.01					0
										20			87		7						
07/07/69	5050		10.0	71	F	8.3	202	--	--	11	--	0.0	107	--	4.5	0.4	--	0.0	--	--	85
1530	5050	1560	115	22	C	8.5				.48			1.75		.13	.01					0
										23			86		6						
08/12/69	5050		10.2	74	F	8.4	272	--	--	22	--	1.0	118	--	6.8	1.2	--	0.1	--	--	92
1415	5050	1300	121	23	C	8.4				.96		.03	1.94		.19	.02					0
										35		1	71		6						
09/16/69	5050		9.0	62	F	9.1	265	17	8.6	27	2.7	3.0	112	24	6.9	2.2	--	0.1	--	148	78
0805	5050	1530	93	17	C	7.8		.85	.71	1.17	.07	.10	1.84	.50	.19	.04				146	0
								30	25	42	3	4	69	19	7	1					
			F3 1470.00					KLAMATH RIVER ABOVE HAMBURG RESERVOIR SITE (1C)													
11/13/68	5050		12.4	49	F	8.3	254	--	--	22	--	0.0	125	--	7.7	5.2	--	0.1	--	--	85
1440	5050	1544	108	9	C	8.0				.96			2.05		.22	.08					0
										37			80		8	3					
01/20/69	5050		12.2	38	F	8.1	255	--	--	19	--	0.0	127	--	7.4	5.8	--	0.1	--	--	98
1440	5050	4670	91	3	C	8.1				.83			2.08		.21	.09					0
										32			81		8	3					
03/10/69	5050		13.0	42	F	7.5	271	--	--	19	--	0.0	130	--	6.2	4.8	--	0.1	--	--	103
1435	5050	1981	103	6	C	8.0				.83			2.13		.17	.08					0
										30			78		6	?					
05/12/69	5050		10.0	63	F	7.5	180	14	7.0	12	1.9	0.0	84	13	6.0	1.4	--	0.1	--	110	64
1425	5050	2066	105	17	C	8.4		.70	.58	.52	.05		1.38	.27	.17	.02				97	0
								38	31	28	3		75	15	9	1					
07/07/69	5050		9.8	73	F	8.3	204	--	--	15	--	0.0	104	--	5.1	0.7	--	0.1	--	--	78
1445	5050	824	115	23	C	8.4				.65			1.71		.14	.01					0
										31			83		6						
09/16/69	5050		9.2	64	F	7.5	265	17	6.7	28	3.6	0.0	113	26	6.8	0.1	--	0.1	--	172	70
0720	5050	1373	87	18	C	7.9		.85	.55	1.22	.09		1.85	.54	.19					144	0
								31	20	45	3		72	21	7						

TABLE D-2 (CONTINUED)

MINERAL ANALYSIS OF SURFACE WATER

DATE TIME	LAB SAMPLE#	G.H. #	DO SAT	TEMP		PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	TDS SUM	TH NCH
			F3 1600.00					KLAMATH RIVER BELOW IRON GATE DAM (1F)													
10/09/68	5050		8.1	58	F	8.1	259	--	--	25	--	0.0	112	--	5.4	3.1	--	0.1	--	--	85
0920	5050	1341	80	14	C	7.4				1.09			1.84		.15	.05					0
										42			71		5	1					
11/13/68	5050		9.2	51	F	8.1	209	--	--	20	--	0.0	95	--	4.8	6.1	--	0.1	--	--	78
1305	5050	1359	83	11	C	7.3				.87			1.56		.14	.10					0
										41			74		6	4					
12/10/68	5050		9.9	44	F	7.9	262	--	--	26	--	0.0	111	--	6.1	7.0	--	0.1	--	--	77
1230	5050	1430	81	7	C	7.4				1.13			1.82		.17	.11					0
										43			69		6	4					
01/20/69	5050		12.1	35	F	7.5	170	--	--	14	--	0.0	82	--	3.8	3.2	--	0.0	--	--	64
1325	5050	3390	86	2	C	7.4				.61			1.34		.11	.05					0
										35			78		6	2					
02/17/69	5050		11.6	39	F	7.5	218	--	--	20	--	0.0	95	--	4.9	6.5	--	0.0	--	--	74
1230	5050	3340	88	4	C	7.6				.87			1.56		.14	.10					0
										39			71		6	4					
03/10/69	5050		12.3	41	F	7.5	240	--	--	19	--	0.0	99	--	4.7	6.0	--	0.0	--	--	79
1320	5050	1750	96	5	C	7.6				.83			1.62		.13	.10					0
										34			67		5	4					
04/08/69	5050		11.8	51	F	7.2	198	--	--	16	--	0.0	76	--	3.4	5.0	--	0.0	--	--	62
1530	5050	7010	106	11	C	7.5				.70			1.25		.10	.08					0
										35			63		5	4					
05/12/69	5050		10.2	62	F	7.4	178	12	5.8	15	2.3	0.0	72	21	5.0	1.9	--	0.0	--	133	54
1545	5050	1860	105	17	C	8.4		.60	.48	.65	.06		1.18	.44	.14	.03				98	0
								34	27	36	3		66	25	8	2					
06/09/69	5050		10.8	67	F	7.9	168	--	--	15	--	0.0	75	--	5.0	0.1	--	0.1	--	--	51
1430	5050	925	118	19	C	8.5				.65			1.23		.14						0
										38			73		8						
07/07/69	5050		11.8	70	F	8.4	174	--	--	14	--	1.0	73	--	3.6	1.7	--	0.0	--	--	62
1330	5050	757	134	21	C	8.4				.61		.03	1.20		.10	.03					1
										35		1	68		5	1					
08/12/69	5050		9.3	72	F	8.2	279	--	--	28	--	0.0	110	--	6.2	2.0	--	0.2	--	--	82
1600	5050	1020	108	22	C	8.4				1.22			1.80		.17	.03					0
										43			64		6	1					
09/15/69	5050		9.3	68	F	8.3	247	14	9.2	22	3.3	0.0	99	27	7.5	0.1	--	0.1	--	158	73
1410	5050	1320	103	20	C	8.2		.70	.76	.96	.08		1.62	.56	.21					132	0
								28	30	38	3		68	23	9						
			F3 4100.00					SALMON RIVER AT SOMESBAR (2A)													
05/12/69	5050	8.97	12.7	51	F	7.4	56	8.0	1.7	1.0	0.8	0.0	30	1.3	0.9	0.2	--	0.0	--	32	27
1325	5050	8930	114	11	C	7.3		.40	.14	.04	.02		.49	.03	.03					29	3
								67	23	7	3		89	5	5						
09/08/69	5050	2.05	9.8	70	F	7.9	145	20	4.4	2.9	0.5	0.0	79	4.9	2.4	0.0	--	0.0	--	78	68
1315	5050	195	111	21	C	8.1		1.00	.36	.13	.01		1.30	.10	.07					74	3
								67	24	9	1		88	7	5						
			F4 1090.00					TRINITY RIVER NEAR HOOPA (4)													
11/11/68	5050	14.85	10.8	56	F	8.0	164	--	--	3.5	--	0.0	80	--	3.8	0.0	--	0.0	--	--	77
1315	5050	1580	104	13	C	7.6				.15			1.31		.11						12
										9			79		6						
12/02/68	5050	15.70	12.6	45	F	8.3	188	--	--	4.0	--	0.0	93	--	3.7	0.2	--	0.0	--	--	90
1400	5050	1830	104	7	C	8.1				.17			1.53		.10						14
										9			81		5						
02/03/69	5050	19.95	12.4	43	F	8.2	175	--	--	2.7	--	0.0	93	--	2.0	0.2	--	0.0	--	--	93
0845	5050	9400	100	6	C	7.3				.12			1.53		.06						17
										6			87		3						
03/03/69	5050	19.73	13.0	45	F	7.7	173	--	--	2.6	--	0.0	96	--	1.9	0.1	--	0.0	--	--	92
1020	5050	8890	108	7	C	7.7				.11			1.57		.05						14
										6			90		2						
04/07/69	5050	20.57	12.1	48	F	7.9	139	--	--	2.3	--	0.0	78	--	1.5	0.3	--	0.0	--	--	67
1120	5050	10600	104	9	C	7.7				.10			1.28		.04						3
										7			92		2						
05/12/69	5050	21.27	11.2	57	F	7.7	92	12	3.4	1.6	0.6	0.0	51	4.8	1.1	0.0	--	0.0	--	52	44
1110	5050	11600	109	14	C	7.3		.60	.28	.07	.02		.84	.10	.03					48	2
								62	29	7	2		87	10	3						
06/09/69	5050	7.27	10.2	63	F	7.6	120	--	--	2.3	--	0.0	65	--	2.5	0.1	--	0.0	--	--	55
1030	5050	420	103	16	C	7.7				.10			1.07		.07						2
										8			89		5						
07/14/69	5050	14.52	9.5	69	F	8.1	167	--	--	3.2	--	0.0	92	--	3.0	0.1	--	0.0	--	--	80
1115	5050	1030	106	21	C	7.8				.14			1.51		.08						5
										8			90		4						
08/04/69	5050	13.68	9.5	69	F	8.1	198	--	--	4.2	--	0.0	98	--	3.1	0.1	--	0.0	--	--	93
1040	5050	510	106	21	C	7.9				.18			1.61		.09						13
										9			81		4						

TABLE D-2 (CONTINUED)

MINERAL ANALYSIS OF SURFACE WATER

DATE TIME	LAB SAMPLE#	G.H. ft	DO SAT	TEMP		PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	MILLIGRAMS PER LITER TDS SUM	TH NCH
			F4 1090.00					TRINITY RIVER NEAR HOOPA (4)												CONTINUED	
09/08/69	5050	13.25	11.0	73	F	7.7	215	28	7.8	4.4	0.6	0.0	112	9.9	4.3	0.0	--	0.0	--	94	102
1120	5050	340	129	23	C	7.7		1.40	.64	.19	.02		1.84	.21	.12					110	10
								62	28	8	1		85	10	6						
			F4 1376.00					TRINITY RIVER NEAR BURNT RANCH (4B)													
11/11/68	5050		10.9	54	F	7.8	108	--	--	3.0	--	0.0	54	--	3.5	0.1	--	0.0	--	--	49
1210	5050	640	102	12	C	7.5				.13			.89		.10						5
										12			82		9						
01/20/69	5050		12.7	42	F	7.9	127	--	--	2.8	--	0.0	70	--	2.2	0.4	--	0.0	--	--	64
1105	5050	8000	101	6	C	7.9				.12			1.15		.06	.01					7
										9			90		4						
03/03/69	5050		13.0	44	F	7.7	180	--	--	2.9	--	0.0	101	--	2.3	0.1	--	0.0	--	--	95
0935	5050	2500	106	7	C	7.5				.13			1.66		.06						12
										7			92		3						
05/12/69	5050		12.0	58	F	7.5	71	9.0	2.6	1.3	0.2	0.0	39	0.6	1.7	0.0	--	0.0	--	32	33
1000	5050	5140	118	14	C	7.3		.45	.21	.06	.01		.64	.01	.05					35	1
								62	29	8	1		91	1	7						
07/14/69	5050		9.5	67	F	7.7	121	--	--	2.9	--	0.0	64	--	3.0	0.0	--	0.0	--	--	50
1000	5050	695	104	19	C	8.0				.13			1.05		.08						0
										10			86		6						
09/08/69	5050		9.2	68	F	8.1	157	17	7.4	4.6	0.4	0.0	84	3.3	5.3	0.0	--	0.0	--	76	73
1000	5050	289	102	20	C	7.6		.85	.61	.20	.01		1.38	.07	.15					79	4
								51	37	12	1		86	4	9						
			F4 1640.00					TRINITY RIVER AT LEWISTON (4A)													
11/11/68	5050	3.35	10.8	48	F	7.8	87	--	--	7.2	--	0.0	50	--	8.4	0.1	--	0.1	--	--	41
1010	5050	259	93	9	C	7.3				.31			.82		.24						0
										35			94		27						
01/20/69	5050	3.06	12.2	41	F	7.8	98	--	--	3.1	--	0.0	54	--	1.6	0.4	--	0.0	--	--	48
0930	5050	177	95	5	C	7.3				.13			.89		.05	.01					4
										13			90		5	1					
03/03/69	5050	3.01	12.2	43	F	7.7	106	--	--	3.2	--	0.0	58	--	1.6	0.1	--	0.0	--	--	57
0810	5050	164	98	6	C	7.3				.14			.95		.05						10
										13			89		4						
05/12/69	5050	3.07	11.4	56	F	7.6	96	5.5	7.4	2.4	0.2	0.0	54	4.1	2.5	0.1	--	0.0	--	42	44
0840	5050	174	109	13	C	7.4		.27	.61	.10	.01		.89	.09	.07					49	0
								27	62	10	1		85	9	7						
07/14/69	5050	3.05	11.1	49	F	7.7	103	--	--	2.5	--	0.0	52	--	1.7	0.1	--	0.0	--	--	45
0815	5050	16	97	9	C	7.3				.11			.85		.05						3
										10			82		4						
09/08/69	5050	3.23	10.6	47	F	7.6	93	5.8	7.4	2.2	0.1	0.0	53	0.6	1.8	0.0	--	0.0	--	62	45
0810	5050	223	90	8	C	7.3		.29	.61	.10			.87	.01	.05					44	2
								29	61	10			94	1	5						
			F5 1100.00					MAD RIVER AT ARCATA (6A)													
10/02/68	5050	3.54	9.5	59	F	8.0	213	--	--	4.9	--	0.0	110	--	2.8	--	--	0.0	--	--	106
0710	5050	24	94	15	C	7.8				.21			1.80		.08						16
										9			84		3						
11/12/68	5050	7.62	11.3	53	F	7.2	117	--	--	4.5	--	0.0	46	--	4.7	--	--	0.1	--	--	48
1230	5050	274	104	12	C	7.3				.20			.75		.13						11
										17			64		11						
12/03/68	5050	6.10	12.8	46	F	8.1	130	--	--	4.2	--	0.0	60	--	3.6	--	--	0.0	--	--	68
1110	5050	1500	107	8	C	7.9				.18			.98		.10						19
										13			75		7						
01/20/69	5050	15.37	12.8	46	F	7.8	100	--	--	3.3	--	0.0	51	--	2.2	--	--	0.0	--	--	58
1315	5050	1960	107	8	C	8.1				.14			.84		.06						16
										14			84		6						
02/03/69	5050	8.47	12.9	45	F	7.6	96	--	--	3.6	--	0.0	45	--	3.0	--	--	0.0	--	--	49
1240	5050	3200	107	7	C	7.3				.16			.74		.08						12
										16			77		8						
03/03/69	5050	8.51	12.9	46	F	7.7	93	--	--	2.9	--	0.0	44	--	2.8	--	--	0.0	--	--	43
1345	5050	2980	108	8	C	7.3				.13			.72		.08						7
										13			77		8						
04/07/69	5050	7.52	12.2	53	F	7.8	103	--	--	2.9	--	0.0	51	--	2.1	--	--	0.0	--	--	42
1445	5050	1760	112	12	C	7.3				.13			.84		.06						0
										12			81		5						
05/13/69	5050	5.71	11.1	57	F	7.7	108	15	2.8	2.7	1.3	0.0	54	5.6	2.5	0.2	--	0.1	--	54	49
1050	5050	645	108	14	C	7.3		.75	.23	.12	.03		.89	.12	.07					57	5
								46	20	11	3		82	11	6						
06/10/69	5050	4.54	10.7	60	F	7.9	158	--	--	3.6	--	0.0	82	--	3.5	--	--	0.0	--	--	73
1120	5050	177	108	16	C	7.6				.16			1.34		.10						6
										10			84		6						

TABLE D-2 (CONTINUED)

MINERAL ANALYSIS OF SURFACE WATER

DATE TIME	LAB SAMPLER	G.H. Q	OO SAT	TEMP		PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	MILLIGRAMS PER LITER TDS SUM	TH NCH
			F5 1100.00					MAD RIVER AT ARCATA (6A)												CONTINUED	
07/15/69	5050	3.64	8.6	73	F	8.3	207	--	--	4.5	--	0.0	110	--	2.7	--	--	0.0	--	--	102
1250	5050	37	101	23	C	7.8				.20			1.80		.08						12
										9			86		3						
08/05/69	5050	3.53	10.1	65	F	8.2	194	--	--	4.4	--	0.0	102	--	2.5	--	--	0.0	--	--	96
1025	5050	52	108	18	C	7.9				.19			1.67		.07						13
										9			86		3						
09/09/69	5050	3.17	10.1	66	F	7.8	206	32	4.4	4.6	0.8	0.0	109	11	3.0	0.0	--	0.0	--	100	98
1050	5050	29	109	19	C	8.0		1.60	.36	.20	.02		1.79	.23	.08					109	9
								73	17	9	1		85	11	4						
			F5 5100.00					REDWOOD CREEK AT ORICK (3B)													
10/01/68	5050	4.83	11.3	62	F	7.8	178	--	--	5.7	--	0.0	73	--	6.0	--	--	0.0	--	--	80
1210	5050	35	114	16	C	7.3				.25			1.20		.17						20
										14			67		9						
11/12/68	5050	8.75	11.6	53	F	7.1	104	--	--	3.7	--	0.0	40	--	4.0	--	--	0.1	--	--	43
1115	5050	3350	107	12	C	8.1				.16			.66		.11						10
										15			63		10						
12/03/68	5050	7.39	12.7	45	F	7.8	99	--	--	3.6	--	0.0	42	--	3.2	--	--	0.0	--	--	48
1000	5050	135	105	7	C	7.5				.16			.69		.09						14
										16			69		9						
01/20/69	5050	10.86	12.2	46	F	7.3	76	--	--	2.6	--	0.0	33	--	2.6	--	--	0.0	--	--	36
1445	5050	8050	102	8	C	8.0				.11			.54		.07						9
										14			71		9						
02/03/69	5050	8.44	12.9	44	F	7.7	74	--	--	3.0	--	0.0	31	--	3.7	--	--	0.0	--	--	32
1335	5050	3000	105	7	C	7.3				.13			.51		.10						7
										17			68		13						
03/03/69	5050	8.36	12.8	47	F	7.1	76	--	--	2.5	--	0.0	32	--	3.1	--	--	0.0	--	--	33
1435	5050	2630	109	8	C	7.2				.11			.52		.09						7
										14			68		11						
04/07/69	5050	6.97	11.4	53	F	7.7	91	--	--	2.7	--	0.0	38	--	2.7	--	--	0.0	--	--	36
1555	5050	970	105	12	C	7.3				.12			.62		.08						5
										13			68		8						
05/13/69	5050	6.22	11.1	56	F	7.8	95	14	1.4	2.7	0.6	0.0	43	8.4	3.5	0.0	--	0.0	--	54	41
1000	5050	524	106	13	C	7.1		.70	.12	.12	.02		.71	.17	.10					52	6
								73	13	13	2		72	17	10						
06/10/69	5050	5.04	10.8	58	F	7.7	124	--	--	3.4	--	0.0	56	--	4.7	--	--	0.0	--	--	53
1020	5050	171	106	14	C	7.3				.15			.92		.13						7
										12			74		10						
07/15/69	5050	5.04	9.9	65	F	8.1	155	--	--	4.4	--	0.0	77	--	4.6	--	--	0.0	--	--	71
1040	5050	90	106	18	C	7.4				.19			1.26		.13						8
										12			81		8						
08/05/69	5050	4.71	10.4	66	F	8.1	158	--	--	4.9	--	0.0	73	--	5.5	--	--	0.0	--	--	75
0915	5050	42	105	16	C	7.3				.21			1.20		.16						15
										13			75		10						
09/09/69	5050	4.08	10.0	61	F	8.0	159	22	3.2	5.3	0.6	0.0	71	9.5	6.2	0.0	--	0.0	--	77	68
1000	5050	23	102	16	C	7.1		1.10	.26	.23	.02		1.16	.20	.17					82	10
								68	16	14	1		76	13	11						
			F6 1100.00					EEL RIVER AT SCOTIA (6)													
10/02/68	5050	8.53	11.0	66	F	8.2	343	43	13	10	1.6	0.0	179	27	5.7	0.2	0.2	.13	9.3	--	161
1230	5050	130	119	19	C	8.2		2.15	1.07	.44	.04		2.94	.56	.16					198	14
								58	29	12	1		80	15	4						
11/13/68	5050	10.77	10.8	54	F	8.0	242	29	8.5	8.6	1.3	0.0	111	26	5.4	0.7	0.3	.12	9.2	--	108
1230	5050	2120	101	12	C	7.9		1.45	.70	.37	.03		1.82	.54	.15	.01				144	17
								57	27	15	1		72	21	6						
12/03/68	5050	11.58	12.9	47	F	8.2	191	22	6.9	6.9	1.0	0.0	89	18	4.3	0.8	0.2	.08	9.2	--	84
1230	5050	2910	110	8	C	8.1		1.10	.57	.30	.03		1.46	.37	.12	.01				113	11
								55	29	15	2		74	19	6	1					
01/21/69	5050	36.22	11.9	49	F	8.1	99	12	2.9	3.8	1.2	0.0	55	6.0	1.2	0.8	0.1	.02	8.8	--	42
1415	5050	190,000	104	9	C	8.4		.60	.24	.17	.03		.90	.12	.03	.01				64	0
								58	23	16	3		85	11	3	1					
02/04/69	5050	16.30	12.3	45	F	7.5	142	17	5.3	4.6	0.9	0.0	73	10	1.5	0.8	0.0	.00	12	90	64
1130	5050	18100	102	7	C	8.4		.85	.44	.20	.02		1.20	.21	.04	.01				88	4
								56	29	13	1		82	14	3	1					
03/04/69	5050	16.66	12.0	50	F	7.3	152	15	7.1	5.2	1.7	0.0	77	12	2.6	1.3	0.2	.00	12	--	66
1220	5050	25000	106	10	C	7.6		.75	.58	.23	.04		1.26	.25	.07	.02				95	3
								47	36	14	3		79	16	4	1					
04/08/69	5050	13.09	11.4	58	F	7.8	155	19	5.8	4.8	1.1	0.0	80	9.0	2.4	2.1	0.1	.00	10	--	72
1315	5050	7800	112	14	C	7.7		.95	.48	.21	.03		1.31	.19	.07	.03				94	7
								57	29	13	2		82	12	4	2					
05/13/69	5050	12.52	10.4	65	F	7.9	123	17	4.1	3.3	0.6	0.0	69	7.0	1.2	1.6	0.1	.00	8.7	--	60
1705	5050	626	111	18	C	7.6		.85	.34	.14	.02		1.13	.15	.03	.03				77	4
								63	25	10	1		84	11	2	2					

TABLE D-2 (CONTINUED)

MINERAL ANALYSIS OF SURFACE WATER

DATE TIME	LAB SAMPLE#	G.H. Q	DO SAT	TEMP		PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	MILLIGRAMS PER LITER: F	B	SIO2	TDS SUM	TH NCH
				F6 1100.00				EEL RIVER AT SCOTIA (6)													CONTINUED
06/10/69	5050	10.00	10.9	65	F	8.1	191	24	6.4	4.7	1.0	0.0	98	12	2.2	0.0	0.1	.11	8.4	--	86
1515	5050	1350	117	18	C	8.1		1.20	.53	.20	.03		1.61	.25	.06					107	6
								61	27	10	2		84	13	3						
07/15/69	5050	9.03	9.4	69	F	8.2	281	37	10	7.5	1.4	0.0	149	18	3.8	200	0.0	50.0	7.2	--	134
1600	5050	402	105	21	C	8.2		1.85	.82	.33	.04		2.44	.37	.11	3.22				408	12
								61	27	11	1		40	6	2	52					
08/05/69	5050	8.67	10.2	71	F	8.4	314	40	11	8.5	1.5	2.0	164	15	4.4	0.0	0.2	.16	9.3	--	145
1310	5050	188	117	22	C	8.3		2.00	.90	.37	.04	.07	2.69	.31	.12					172	7
								60	27	11	1	2	84	10	4						
09/09/69	5050		12.1	75	F	8.4	301	36	13	9.6	1.4	1.0	154	23	6.5	0.1	0.1	.13	8.1	162	144
1615	5050	110	145	24	C	8.4		1.80	1.07	.42	.04	.03	2.53	.48	.18					174	16
								54	32	13	1	1	79	15	6						
				F6 1154.50				EEL RIVER AT SOUTH FORK (5)													
10/02/68	5050		8.9	64	F	8.0	370	--	--	9.2	--	0.0	158	--	7.9	--	--	0.2	--	--	168
1340	5050	38	94	18	C	7.7				.40			2.59		.22						39
										10			70		5						
11/13/68	5050		10.8	53	F	7.9	266	--	--	8.2	--	0.0	121	--	6.5	--	--	0.2	--	--	124
1400	5050	1150	100	12	C	7.9				.36			1.98		.18						25
										13			74		6						
12/04/68	5050		12.5	44	F	8.1	198	--	--	6.0	--	0.0	93	--	3.7	--	--	0.1	--	--	99
0840	5050	1050	102	7	C	8.0				.26			1.53		.10						23
										13			77		5						
01/22/69	5050		12.7	47	F	7.9	110	--	--	3.0	--	0.0	60	--	1.6	--	--	0.0	--	--	65
0810	5050	66500	108	8	C	8.3				.13			.98		.05						16
										11			89		4						
02/04/69	5050		12.7	44	F	8.1	146	--	--	4.0	--	0.0	72	--	2.0	--	--	0.0	--	--	70
1215	5050	12800	104	7	C	7.9				.17			1.18		.06						11
										11			80		4						
03/04/69	5050		12.6	47	F	7.5	140	--	--	3.4	--	0.0	72	--	1.9	--	--	0.0	--	--	74
1305	5050	11000	107	8	C	7.6				.15			1.18		.05						15
										10			84		3						
04/08/69	5050		11.5	54	F	8.0	142	--	--	3.7	--	0.0	73	--	1.7	--	--	0.0	--	--	64
1410	5050	5450	108	12	C	7.9				.16			1.20		.05						4
										11			84		3						
05/13/69	5050		10.6	62	F	7.8	114	16	2.9	2.7	1.0	0.0	60	4.3	1.6	0.1	--	0.0	--	63	52
1635	5050	5700	109	17	C	7.7		.80	.24	.12	.03		.98	.09	.05					58	3
								67	20	10	3		88	8	4						
06/11/69	5050		9.9	64	F	8.1	167	--	--	3.4	--	0.0	85	--	2.7	--	--	0.0	--	--	80
0830	5050	880	105	18	C	7.8				.15			1.39		.08						11
										8			83		4						
07/15/69	5050		9.1	72	F	8.3	260	--	--	6.1	--	0.0	136	--	3.7	--	--	0.0	--	--	128
1630	5050	165	105	22	C	8.2				.27			2.23		.10						17
										10			85		3						
08/05/69	5050		9.6	76	F	8.3	302	--	--	6.8	--	0.0	156	--	4.3	--	--	0.1	--	--	145
1345	5050	55	109	21	C	8.1				.30			2.56		.12						17
										9			84		3						
09/10/69	5050		9.2	67	F	8.0	312	44	10	8.6	1.2	0.0	154	29	5.3	0.1	--	0.1	--	162	151
0720	5050	35	101	19	C	8.0		2.20	.82	.37	.03		2.53	.60	.15					174	25
								64	24	11	1		77	18	5						
				F6 1329.50				EEL RIVER ABOVE OUTLET CREEK (50)													
10/03/68	5050	2.71	8.7	66	F	8.0	268	--	--	11	--	0.0	113	--	7.3	0.3	--	0.5	--	--	118
1050	5050	4.4	94	19	C	7.9				.48			1.85		.21						26
										17			69		7						
11/14/68	5050	2.98	11.2	48	F	8.2	291	--	--	12	--	0.0	136	--	8.2	0.0	--	0.7	--	--	130
0915	5050	37	96	9	C	7.9				.52			2.23		.23						19
										17			76		7						
12/04/68	5050	3.10	12.8	44	F	8.3	229	--	--	9.4	--	0.0	111	--	5.8	0.1	--	0.4	--	--	110
1535	5050	96	104	7	C	8.2				.41			1.82		.16						19
										17			79		6						
01/22/69	5050	15.05	12.7	44	F	7.7	88	--	--	2.8	--	0.0	48	--	1.6	0.6	--	0.0	--	--	48
1205	5050	16100	104	7	C	7.7				.12			.79		.05	.01					9
										13			89		5	1					
02/05/69	5050	8.12	12.5	42	F	7.7	107	--	--	3.6	--	0.0	55	--	2.0	0.2	--	0.0	--	--	58
0725	5050	4000	99	6	C	7.3				.16			.90		.06						13
										14			84		5						
03/05/69	5050	6.42	12.4	48	F	7.4	120	--	--	3.2	--	0.0	64	--	1.7	0.1	--	0.0	--	--	55
1315	5050	2150	107	9	C	7.6				.14			1.05		.05						3
										11			87		4						
04/09/69	5050	5.13	11.4	51	F	7.9	129	--	--	3.6	--	0.0	66	--	2.4	0.1	--	0.0	--	--	56
0925	5050	1110	102	11	C	7.8				.16			1.08		.07						2
										12			83		5						

TABLE D-2 (CONTINUED)

MINERAL ANALYSIS OF SURFACE WATER

DATE TIME	LAB SAMPLER	G.H.	DO SAT	TEMP		PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	TOS SUM	TH NCH
				F6 1329.50				EEL RIVER ABOVE OUTLET CREEK (50) CONTINUED													
05/14/69	5050	4.05	10.5	58	F	8.0	137	17	4.7	4.0	0.8	0.0	76	3.1	1.6	0.1	--	0.2	--	82	62
0805	5050	410	103	14	C	7.8		.85	.39	.17	.02		1.25	.06	.05					69	0
								69	27	12	1		92	4	4						
06/11/69	5050	2.56	10.6	72	F	8.5	215	--	--	6.4	--	3.0	105	--	4.1	0.0	--	0.3	--	--	100
1220	5050	4	123	22	C	8.3				.28		.10	1.72		.12						9
										13		4	80		5						
07/16/69	5050	2.16	9.1	73	F	8.3	240	--	--	8.9	--	0.0	137	--	4.5	0.1	--	0.3	--	--	107
1045	5050	8.5	106	23	C	8.2				.39			2.25		.13						0
										16			93		5						
08/06/69	5050	2.02	9.2	66	F	8.3	248	--	--	9.6	--	0.0	117	--	5.4	0.2	--	0.4	--	--	109
0910	5050	7.9	100	19	C	8.2				.42			1.92		.15						13
										16			77		6						
09/10/69	5050	1.95	8.8	74	F	8.2	256	30	8.7	12	0.1	0.0	116	25	5.6	0.0	--	0.4	--	124	109
1055	5050	3.0	104	23	C	8.0		1.50	.68	.52			1.90	.52	.16					138	14
								56	25	19			74	20	6						
				F6 1350.00				OUTLET CREEK NEAR LONGVALE (58)													
10/03/68	5050	2.39	9.5	67	F	8.1	358	--	--	19	--	0.0	146	--	30	--	--	2.9	--	--	138
1115	5050	1.5	104	19	C	8.0				.83			2.39		.85						19
										23			66		23						
11/14/68	5050	3.04	11.2	48	F	8.2	236	--	--	12	--	0.0	109	--	11	--	--	0.9	--	--	100
0845	5050	3	96	9	C	7.7				.52			1.79		.31						11
										22			75		13						
12/04/68	5050	3.44	13.1	44	F	7.9	154	--	--	7.4	--	0.0	71	--	6.4	--	--	0.3	--	--	84
1605	5050	72	107	7	C	8.0				.32			1.16		.18						26
										20			75		11						
01/22/69	5050	6.01	11.8	46	F	7.5	58	--	--	2.8	--	0.0	30	--	2.2	--	--	0.0	--	--	25
1135	5050	396	99	8	C	7.1				.12			.49		.06						1
										20			84		10						
02/05/69	5050	5.72	12.6	42	F	7.4	69	--	--	3.0	--	0.0	34	--	2.4	--	--	0.0	--	--	30
0710	5050	1850	100	6	C	7.1				.13			.56		.07						2
										18			81		10						
03/05/69	5050	4.17	11.8	46	F	7.2	89	--	--	3.3	--	0.0	48	--	2.5	--	--	0.0	--	--	38
1250	5050	794	102	9	C	7.3				.14			.79		.07						0
										15			88		7						
04/09/69	5050	2.73	11.1	53	F	7.8	133	--	--	5.7	--	0.0	67	--	3.5	--	--	0.2	--	--	55
0845	5050	226	102	12	C	7.5				.25			1.10		.10						0
										18			82		7						
05/14/69	5050	1.87	10.0	60	F	8.0	196	21	7.4	8.2	1.1	0.0	101	6.9	7.5	0.0	--	0.6	--	101	83
0745	5050	41	101	16	C	7.8		1.05	.61	.36	.03		1.66	.14	.21					102	0
								51	30	18	1		83	7	10						
06/11/69	5050	1.68	10.4	69	F	8.3	237	--	--	10	--	0.0	120	--	9.9	--	--	0.9	--	--	102
1150	5050	21	116	21	C	8.2				.44			1.97		.28						4
										18			83		11						
07/16/69	5050	1.25	8.1	74	F	8.2	274	--	--	13	--	0.0	137	--	13	--	--	1.2	--	--	118
1015	5050	2.1	96	23	C	8.1				.57			2.25		.37						6
										20			82		13						
08/06/69	5050	1.14	8.8	70	F	8.3	294	--	--	15	--	0.0	145	--	18	--	--	1.5	--	--	123
0845	5050	1.4	100	21	C	8.2				.65			2.38		.51						4
										22			80		17						
09/10/69	5050	1.09	8.9	75	F	7.9	315	31	11	18	1.8	0.0	145	8.9	24	0.0	--	2.0	--	155	122
1035	5050	.8	106	24	C	8.1		1.55	.90	.78	.05		2.38	.19	.68					168	3
								47	27	24	2		73	6	21						
				F6 3010.00				EEL RIVER, MIDDLE FORK, AT DOS RIOS (5C)													
10/03/68	5050	7.43	10.6	65	F	8.0	376	--	--	12	--	0.0	120	--	16	0.0	--	0.2	--	--	161
1015	5050	16	113	18	C	8.3				.52			1.97		.45						63
										13			52		11						
11/14/68	5050	9.08	12.1	46	F	7.7	219	--	--	6.3	--	0.0	94	--	4.5	0.1	--	0.1	--	--	107
0945	5050	272	101	8	C	7.9				.27			1.54		.13						30
										12			70		5						
12/04/68	5050	9.28	13.3	41	F	8.3	213	--	--	5.8	--	0.0	97	--	4.0	0.3	--	0.0	--	--	104
1500	5050	312	104	5	C	8.1				.25			1.59		.11						25
										11			74		5						
01/22/69	5050		13.3	42	F	7.9	118	--	--	3.0	--	0.0	60	--	1.6	0.4	--	0.0	--	--	61
1300	5050	20000	105	6	C	8.1				.13			.98		.05	.01					12
										11			83		4						
02/05/69	5050	4.82	13.3	42	F	8.0	149	--	--	3.8	--	0.0	75	--	2.1	0.2	--	0.0	--	--	77
0800	5050	5230	102	4	C	7.7				.17			1.23		.06						16
										11			82		4						
03/05/69	5050	11.65	13.1	46	F	7.7	178	--	--	3.9	--	0.0	74	--	1.9	0.1	--	0.0	--	--	87
1345	5050	2400	110	8	C	7.8				.17			1.21		.05						27
										9			67		2						

TABLE D-2 (CONTINUED)

MINERAL ANALYSIS OF SURFACE WATER

DATE TIME	LAB SAMPLE#	G.M. U	DO SAT	TEMP		PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	TDS SUM	TH NCH
				F6 3010.00				EEL RIVER, MIDDLE FORK, AT DOS RIOS (5C) CONTINUED													
04/09/69	5050	11.89	12.3	48	F	7.9	134	--	--	2.9	--	0.0	69	--	1.4	0.5	--	0.0	--	--	62
0955	5050	2430	106	9	C	8.2				.13			1.13		.04	.01					6
										9			84		2						
05/14/69	5050	12.09	12.3	51	F	7.9	88	12	2.4	1.8	0.9	0.0	48	0.5	1.2	0.1	--	0.1	--	60	40
0845	5050	344.	110	11	C	7.7		.60	.20	.08	.02		.79	.01	.03					43	1
								67	22	9	2		95	1	4						
06/11/69	5050	9.53	9.8	70	F	8.2	142	--	--	2.8	--	0.0	70	--	1.8	0.0	--	0.1	--	--	67
1300	5050	472	111	21	C	7.8				.12			1.15		.05						10
										8			80		3						
07/16/69	5050	7.92	9.0	74	F	8.3	242	--	--	5.9	--	0.0	137	--	4.7	0.1	--	0.0	--	--	128
1130	5050	9.	107	23	C	8.2				.26			2.25		.13						16
										10			92		5						
08/06/69	5050	7.92	9.6	70	F	8.3	283	--	--	7.9	--	0.0	123	--	7.8	0.1	--	0.1	--	--	134
0940	5050	41	109	21	C	8.2				.34			2.02		.22						33
										12			71		7						
09/10/69	5050	7.52	10.6	73	F	8.2	306	39	10	10	1.2	0.0	110	46	12	0.0	--	0.2	--	159	139
1140	5050	22	124	23	C	8.2		1.95	.82	.44	.03		1.80	.96	.34					172	49
								60	25	14	1		58	31	11						
				F6 3050.00				MILL CREEK NEAR COVELO (5E)													
12/04/68	5050		12.6	43	F	8.2	233	--	--	8.0	--	0.0	118	--	4.9	0.3	--	0.0	--	--	120
1415	5050	7.6	101	6	C	7.8				.35			1.94		.14						23
										15			83		6						
01/22/69	5050		11.9	43	F	7.8	116	--	--	4.3	--	0.0	59	--	2.1	0.9	--	0.0	--	--	59
1515	5050	1200	96	6	C	7.3				.19			.97		.06	.01					11
										16			83		5						
02/05/69	5050		12.1	45	F	7.8	139	--	--	4.2	--	0.0	73	--	2.4	0.3	--	0.0	--	--	70
0845	5050	650	93	4	C	7.3				.18			1.20		.07						10
										12			86		5						
03/05/69	5050		11.4	49	F	7.5	159	--	--	4.4	--	0.0	88	--	2.2	0.2	--	0.0	--	--	83
1420	5050	390	100	9	C	7.6				.19			1.44		.06						11
										11			90		3						
04/09/69	5050		11.2	54	F	7.8	215	--	--	5.9	--	0.0	118	--	3.2	0.4	--	0.0	--	--	100
1105	5050	95	105	12	C	8.0				.26			1.94		.09	.01					3
										12			90		4						
05/14/69	5050		9.9	63	F	8.3	304	32	16	8.2	1.8	0.0	184	8.9	3.4	0.4	--	0.1	--	160	148
0915	5050	7.5	104	17	C	7.8		1.60	1.32	.36	.05		3.02	.19	.10	.01				161	0
								48	40	11	2		91	6	3						
06/11/69	5050		8.5	75	F	8.2	353	--	--	10	--	0.0	209	--	5.0	0.0	--	0.1	--	--	176
1400	5050	0.1	102	24	C	8.2				.44			3.43		.14						5
										12			97		3						
				F6 3105.00				WILLIAMS CREEK NEAR COVELO (5F)													
10/03/68	5050	1.47	9.7	61	F	8.1	310	--	--	4.9	--	0.0	169	--	2.1	0.0	--	0.0	--	--	162
0900	5050	9.7	99	16	C	8.1				.21			2.77		.06						24
										6			89		1						
11/14/68	5050	2.03	12.2	44	F	8.1	175	--	--	3.1	--	0.0	92	--	1.6	0.1	--	0.0	--	--	86
1115	5050	116	99	7	C	7.9				.13			1.51		.05						11
										7			86		2						
12/04/68	5050	2.09	12.7	44	F	8.2	156	--	--	3.0	--	0.0	80	--	1.5	0.1	--	0.0	--	--	88
1320	5050	26	104	7	C	8.2				.13			1.31		.04						23
										8			83		2						
01/22/69	5050	5.05	12.6	42	F	7.6	74	--	--	2.0	--	0.0	38	--	1.2	0.3	--	0.0	--	--	38
1420	5050	830	100	6	C	7.7				.09			.62		.03						7
										12			83		4						
02/05/69	5050	3.74	12.7	45	F	7.8	94	--	--	2.3	--	0.0	52	--	1.4	0.1	--	0.0	--	--	44
0920	5050	352	98	4	C	7.3				.10			.85		.04						2
										10			90		4						
03/05/69	5050	3.27	11.6	47	F	7.5	109	--	--	2.2	--	0.0	55	--	1.2	0.1	--	0.0	--	--	50
1450	5050	120	99	8	C	8.4				.10			.90		.03						5
										9			82		2						
04/09/69	5050	3.08	11.8	49	F	7.7	101	--	--	2.1	--	0.0	50	--	0.8	0.0	--	0.0	--	--	46
1210	5050	106	103	9	C	7.5				.09			.82		.02						5
										8			81		1						
05/14/69	5050	2.99	11.4	65	F	7.8	91	9.6	4.9	1.5	1.0	0.0	51	0.5	1.1	0.1	--	0.1	--	56	44
1055	5050	75	122	18	C	7.5		.48	.40	.07	.03		.84	.01	.03					44	2
								49	41	7	3		95	1	3						
06/11/69	5050	2.54	9.7	65	F	8.0	133	--	--	2.1	--	0.0	70	--	0.8	0.1	--	0.0	--	--	65
1430	5050	9.8	104	18	C	8.0				.09			1.15		.02						8
										6			86		1						
07/16/69	5050	2.49	8.8	83	F	8.4	209	--	--	3.6	--	1.0	120	--	1.9	0.1	--	0.0	--	--	110
1400	5050	.6	115	28	C	8.4				.16		.03	1.97		.05						10
										7		1	94		2						

TABLE D-2 (CONTINUED)

MINERAL ANALYSIS OF SURFACE WATER

DATE TIME	LAB SAMPLER	G.H. Q	DO SAT	TEMP		PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	TDS SUM	TH NCH
			F6 3105.00					WILLIAMS CREEK NEAR COVELO (5F) CONTINUED													
08/06/69	5050	2.48	9.8	76	F	8.3	248	--	--	3.9	--	0.0	142	--	2.0	0.3	--	0.0	--	--	127
1050	5050	0.4	119	24	C	8.4				.17			2.33		.06						11
										6			93		2						
09/10/69	5050	2.48	9.1	82	F	8.3	262	30	14	5.2	0.9	0.0	146	14	2.4	0.1	--	0.0	--	131	132
1245	5050	0.4	117	28	C	8.2		1.50	1.15	.23	.02		2.39	.29	.07					138	13
								52	40	8	1		87	11	3						
			F6 3120.00					EEL RIVER, MIDDLE FORK, ABOVE BLACK BUTTE RIVER													
10/03/68	5050		9.7	62	F	8.0	382	--	--	16	--	0.0	120	--	30	0.0	--	0.3	--	--	149
0815	5050	9.0	100	17	C	8.1				.70			1.97		.85						51
										18			51		22						
11/14/68	5050		12.2	44	F	8.1	160	--	--	4.9	--	0.0	72	--	4.2	0.1	--	0.0	--	--	69
1140	5050	173	99	7	C	7.6				.21			1.18		.12						10
										13			73		7						
12/04/68	5050		13.3	41	F	8.1	159	--	--	4.6	--	0.0	73	--	4.2	0.1	--	0.0	--	--	84
1250	5050	142	104	5	C	8.1				.20			1.20		.12						24
										12			75		7						
02/05/69	5050		13.1	39	F	8.0	111	--	--	2.6	--	0.0	54	--	1.7	0.1	--	0.0	--	--	54
1015	5050	700	99	4	C	7.3				.11			.89		.05						10
										9			80		4						
03/05/69	5050		12.0	44	F	7.7	131	--	--	2.6	--	0.0	70	--	2.2	0.0	--	0.0	--	--	63
1615	5050	475	98	7	C	8.0				.11			1.15		.06						6
										8			87		4						
04/09/69	5050		12.5	46	F	7.6	91	--	--	1.8	--	0.0	47	--	1.4	0.1	--	0.1	--	--	42
1245	5050	760	105	8	C	8.2				.08			.77		.04						4
										8			84		4						
05/14/69	5050		12.1	49	F	7.4	61	8.8	2.2	1.3	0.6	0.0	34	0.0	1.1	0.1	--	0.1	--	44	31
1035	5050	2000	106	9	C	7.3		.44	.18	.06	.02		.56		.03					31	3
								63	26	9	3		95		5						
06/11/69	5050		10.5	66	F	8.0	92	--	--	2.0	--	0.0	46	--	2.4	0.0	--	0.1	--	--	42
1515	5050	310	106	16	C	8.4				.09			.75		.07						5
										9			81		7						
07/16/69	5050		8.5	75	F	8.3	197	--	--	6.1	--	0.0	122	--	7.9	0.1	--	0.0	--	--	94
1315	5050	48	102	24	C	8.2				.27			2.00		.22						0
										13			101		11						
08/06/69	5050		9.3	74	F	8.3	262	--	--	9.6	--	0.0	105	--	16	0.1	--	0.1	--	--	114
1130	5050	20	110	23	C	8.4				.42			1.72		.45						28
										16			65		17						
09/10/69	5050		9.4	79	F	8.3	342	44	3.9	17	1.4	0.0	118	29	28	3.8	--	0.3	--	160	126
1255	5050	9.0	117	26	C	8.4		2.20	.32	.74	.04		1.94	.60	.79	.06				185	29
								67	10	22	1		57	18	23	2					
			F6 3200.00					BLACK BUTTE RIVER NEAR COVELO (5H)													
10/03/68	5050	14.15	8.2	63	F	7.8	395	--	--	7.3	--	0.0	127	--	2.7	0.0	--	0.0	--	--	183
0830	5050	4.5	86	17	C	7.8				.32			2.08		.08						79
										8			52		2						
11/14/68	5050	14.27	11.9	46	F	8.2	352	--	--	7.0	--	0.0	127	--	3.0	0.0	--	0.1	--	--	159
1145	5050	21	100	8	C	8.0				.30			2.08		.08						55
										8			59		2						
12/04/68	5050	14.42	13.3	42	F	8.3	262	--	--	6.2	--	0.0	105	--	2.2	0.2	--	0.0	--	--	129
1235	5050	4[illegible]	105	6	C	8.3				.27			1.72		.06						43
										10			65		2						
02/05/69	5050	17.22	12.9	39	F	8.1	163	--	--	3.5	--	0.0	74	--	1.6	0.1	--	0.0	--	--	82
0955	5050	954	98	4	C	8.1				.15			1.21		.05						22
										9			74		3						
03/05/69	5050	16.46	12.0	46	F	7.7	189	--	--	3.3	--	0.0	90	--	1.4	0.0	--	0.0	--	--	92
1530	5050	355	101	8	C	7.8				.14			1.48		.04						18
										7			78		2						
04/09/69	5050	16.31	12.0	47	F	7.8	126	--	--	2.5	--	0.0	60	--	1.0	0.2	--	0.2	--	--	57
1300	5050	574	102	8	C	7.6				.11			.98		.03						8
										8			77		2						
05/14/69	5050	15.50	12.0	51	F	7.7	86	12	2.2	1.8	0.6	0.0	44	0.5	1.1	0.1	--	0.1	--	58	39
1015	5050	930	108	11	C	7.5		.60	.18	.08	.02		.72	.01	.03					40	3
								68	20	9	2		95	1	4						
06/11/69	5050	13.65	9.9	64	F	8.1	157	--	--	2.9	--	0.0	75	--	1.5	0.0	--	0.0	--	--	74
1530	5050	127	105	18	C	7.8				.13			1.23		.04						13
										8			78		2						
07/16/69	5050	12.79	8.4	80	F	8.3	229	--	--	4.2	--	0.0	112	--	1.9	0.1	--	0.0	--	--	114
1340	5050	22	106	27	C	8.4				.18			1.84		.05						22
										7			80		2						
08/06/69	5050	12.26	7.0	75	F	8.3	267	--	--	5.0	--	0.0	117	--	2.2	0.1	--	0.0	--	--	129
1145	5050	9.0	84	24	C	8.3				.22			1.92		.06						33
										8			71		2						

TABLE D-2 (CONTINUED)

MINERAL ANALYSIS OF SURFACE WATER

DATE TIME	LAB SAMPLER	G.H. U	DO SAT	TEMP		PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	MILLIGRAMS PER LITER: F	B	SIO2	TOS SUM	TH NCH
			F6 3200.00					BLACK BUTTE RIVER NEAR COVELO (5H) CONTINUED													
/10/69	5050	11.78	9.7	80	F	8.1	304	49	2.2	7.2	0.5	0.0	110	51	2.6	0.0	--	0.0	--	169	131
1320	5050	7.0	122	27	C	8.3		2.45	.18	.31	.01		1.80	1.06	.07					166	41
								83	6	11			61	35	2						
			F6 4100.00					EEL RIVER, SOUTH FORK, NEAR MIRANDA (7)													
/02/68	5050	3.54	12.1	69	F	8.0	282	--	--	10	--	0.0	145	--	7.5	0.3	--	0.1	--	--	131
1415	5050	41	136	21	C	8.4				.44			2.38		.21						12
										15			84		7						
/13/68	5050	4.89	11.7	53	F	8.0	206	--	--	8.2	--	0.0	102	--	5.5	0.1	--	0.1	--	--	88
1445	5050	650	108	12	C	8.0				.36			1.67		.16						5
										17			81		7						
/04/68	5050	5.03	12.6	45	F	8.0	169	--	--	7.1	--	0.0	84	--	4.5	0.1	--	0.0	--	--	76
0920	5050	934	104	7	C	7.9				.31			1.38		.13						7
										18			81		7						
/22/69	5050	14.04	11.9	48	F	7.5	91	--	--	4.4	--	0.0	46	--	2.6	0.6	--	0.0	--	--	45
0840	5050	20000	103	9	C	7.8				.19			.75		.07	.01					8
										20			82		7	1					
/04/69	5050	7.99	12.2	46	F	8.0	112	--	--	4.9	--	0.0	56	--	3.1	0.2	--	0.0	--	--	52
1350	5050	4470	102	8	C	7.6				.21			.92		.09						6
										18			82		8						
/04/69	5050	8.15	12.2	50	F	7.5	109	--	--	4.4	--	0.0	58	--	2.8	0.2	--	0.0	--	--	46
1410	5050	4620	108	10	C	7.6				.19			.95		.08						0
										17			87		7						
/08/69	5050	5.53	11.5	57	F	7.7	142	--	--	5.4	--	0.0	72	--	4.3	0.0	--	0.0	--	--	60
1455	5050	1110	112	14	C	7.7				.23			1.18		.12						1
										16			83		8						
/13/69	5050	4.59	11.1	62	F	8.2	175	21	5.7	6.6	1.0	0.0	90	4.9	4.5	0.1	--	0.1	--	103	76
1700	5050	450	115	17	C	8.1		1.05	.47	.29	.03		1.48	.10	.13					88	2
								57	26	16	2		87	6	8						
/11/69	5050	4.05	10.2	62	F	8.2	204	--	--	7.0	--	0.0	108	--	5.1	0.0	--	0.1	--	--	92
0925	5050	220	105	17	C	8.2				.30			1.77		.14						4
										14			86		6						
/16/69	5050	3.56	8.4	66	F	8.3	239	--	--	8.4	--	0.0	130	--	5.2	0.1	--	0.0	--	--	116
0815	5050	95	91	19	C	8.0				.37			2.13		.15						10
										15			89		6						
/05/69	5050	3.38	13.0	73	F	8.3	237	--	--	9.1	--	0.0	125	--	5.9	0.3	--	0.0	--	--	109
1430	5050	63	152	23	C	8.4				.40			2.05		.17						7
										16			86		7						
/10/69	5050	3.18	7.4	66	F	8.1	256	31	8.1	11	0.1	0.0	136	12	6.9	0.0	--	0.1	--	103	111
0850	5050	38	80	19	C	8.1		1.55	.67	.48			2.23	.25	.19					136	0
								57	25	18			84	9	7						
			F6 5300.00					VAN DUZEN RIVER NEAR BRIDGEVILLE (5A)													
/01/68	5050	4.64	10.4	69	F	8.0	306	--	--	8.6	--	0.0	140	--	4.5	--	--	0.1	--	--	146
1530	5050	9.8	116	21	C	8.2				.37			2.30		.13						31
										12			75		4						
/12/68	5050	6.74	11.7	51	F	7.6	148	--	--	4.0	--	0.0	65	--	2.9	--	--	0.1	--	--	68
1415	5050	1370	105	11	C	7.5				.17			1.07		.08						15
										11			72		5						
/03/68	5050	5.97	12.8	45	F	8.2	160	--	--	4.3	--	0.0	77	--	2.6	--	--	0.0	--	--	85
1330	5050	546	106	7	C	7.9				.19			1.26		.07						22
										11			78		4						
/21/69	5050	11.49	12.4	46	F	7.8	98	--	--	3.0	--	0.0	56	--	1.6	--	--	0.0	--	--	52
1520	5050	10400	104	8	C	8.3				.13			.92		.05						6
										13			93		5						
/04/69	5050	6.76	13.1	41	F	7.9	121	--	--	3.6	--	0.0	61	--	1.9	--	--	0.0	--	--	61
1030	5050	1270	102	5	C	7.5				.16			1.00		.05						11
										13			82		4						
/04/69	5050	6.74	13.0	43	F	7.3	118	--	--	3.1	--	0.0	59	--	1.7	--	--	0.0	--	--	57
100	5050	1320	105	6	C	8.0				.13			.97		.05						9
										11			82		4						
/08/69	5050	6.39	11.9	51	F	7.8	111	--	--	2.7	--	0.0	58	--	1.2	--	--	0.0	--	--	54
230	5050	920	107	11	C	7.5				.12			.95		.03						7
										10			85		2						
/13/69	5050	5.97	10.8	60	F	8.0	116	11	6.0	2.5	0.6	0.0	58	4.4	1.2	0.1	--	0.0	--	80	52
500	5050	546	109	16	C	7.4		.55	.49	.11	.02		.95	.09	.03					54	5
								47	42	9	2		89	8	3						
/10/69	5050	5.08	10.3	62	F	8.2	173	--	--	3.6	--	0.0	91	--	2.1	--	--	0.0	--	--	82
400	5050	140	106	17	C	8.0				.16			1.49		.06						8
										9			86		3						
/15/69	5050	4.63	9.8	75	F	8.3	224	--	--	5.6	--	0.0	113	--	2.5	--	--	0.0	--	--	114
430	5050	35	117	24	C	8.3				.24			1.85		.07						22
										10			82		3						

TABLE D-2 (CONTINUED)

MINERAL ANALYSIS OF SURFACE WATER

DATE TIME	LAB SAMPLER	G.H. N	DO SAT	TEMP		PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE									MILLIGRAMS PER LITER			TDS SUM	TH NCH
								CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2		
F6 5300.00 VAN DUZEN RIVER NEAR BRIDGEVILLE (5A) CONTINUED																					
08/05/69	5050	4.51	10.0	68	F	8.3	267	--	--	6.8	--	0.0	140	--	3.1	--	--	0.0	--	--	127
1155	5050	17	111	20	C	8.1				.30			2.30		.09						12
										11			86		3						
09/09/69	5050	4.44	10.0	75	F	7.9	251	32	6.6	8.6	0.1	0.0	113	27	4.0	0.0	--	0.0	--	105	107
1515	5050	7.0	120	24	C	8.2		1.60	.54	.37			1.85	.56	.11					134	15
								64	22	15			73	22	4						
F7 1100.00 MATTOLE RIVER NEAR PETROLIA (7A)																					
10/02/68	5050	2.35	11.2	63	F	7.9	272	--	--	9.5	--	0.0	120	--	5.0	--	--	0.1	--	--	128
1050	5050	39	117	17	C	8.1				.41			1.97		.14						30
										15			72		5						
11/13/68	5050	4.46	11.6	50	F	7.9	168	--	--	7.0	--	0.0	67	--	3.9	--	--	0.0	--	--	70
1030	5050	908	103	13	C	7.5				.30			1.10		.11						15
										17			65		6						
01/21/69	5050	11.44	11.3	51	F	7.3	86	--	--	4.5	--	0.0	38	--	2.7	--	--	0.0	--	--	39
1235	5050	12500	101	11	C	8.3				.20			.62		.08						8
										23			72		9						
05/13/69	5050	3.70	10.6	65	F	7.8	170	22	3.6	6.3	0.8	0.0	78	14	4.7	0.0	--	0.1	--	88	70
1300	5050	305	113	18	C	7.9		1.10	.30	.27	.02		1.28	.29	.13					90	6
								65	18	16	1		75	17	8						
09/09/69	5050	2.91	13.7	75	F	8.2	235	33	5.2	9.7	1.2	0.0	106	25	4.6	0.0	--	0.0	--	93	104
1305	5050	38	164	24	C	8.3		1.65	.43	.42	.03		1.74	.52	.13					131	17
								65	17	17	1		73	22	5						
F7 5100.00 BEAR RIVER NEAR CAPETOWN (7B)																					
10/02/68			11.3	58	F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0930	5050		111	14	C	8.1															
11/13/68			12.2	49	F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0915	5050	150	107	9	C	7.5															
01/21/69	5050		11.4	46	F	7.6	135	--	--	7.9	--	0.0	47	--	7.6	--	--	0.1	--	--	61
1135	5050		96	8	C	7.6				.34			.77		.21						23
										25			57		15						
05/13/69	5050		10.2	65	F	7.9	211	28	5.4	7.4	0.8	0.0	85	29	6.5	0.0	--	0.0	--	138	92
1225	5050	75	109	18	C	7.9		1.40	.44	.32	.02		1.39	.60	.18					119	23
								64	20	15	1		64	28	8						
09/09/69	5050		10.2	69	F	7.9	269	34	6.6	12	1.0	0.0	110	37	7.4	0.0	--	0.1	--	126	112
1235	5050	50	114	21	C	8.1		1.70	.54	.52	.03		1.80	.77	.21					152	22
								61	19	19	1		65	28	8						

TABLE D-3
TRACE ELEMENT ANALYSES OF SURFACE WATER
North Coastal Area

STATION	STATION NUMBER	DATE	CONSTITUENTS IN MICROGRAMS PER LITER															
			(Al)	(Be)	(Bi)	(Cd)	(Co)	(Cr)	(Cu)	(Fe)	(Ga)	(Ge)	(Mn)	(Mo)	(Ni)	(Pb)	(Ti)	(V)	(Zn)
r abov Outlet Creek (5d)	F61329.50	5-14-69	2.3	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	4.6	<5.7	<0.6	<1.4	<0.3	0.8	<1.4	<0.6	<0.3	<5.7
		9-10-69	<1.4	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	7.4	<5.7	<0.3	<1.4	<1.1	<0.3	<1.4	<0.6	0.3	<5.7
River, Middle Fork, at Dos Rios (5c)	F63010.00	5-14-69	43	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	51	<5.7	<0.3	<1.4	<0.3	2.9	<1.4	<0.6	<0.3	<5.7
			2.6	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	10	<5.7	<0.3	<1.4	<1.4	<0.3	<1.4	<0.6	0.4	<5.7
River at Scotia (6)	F61100.00	5-13-69	286	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	11	<5.7	<0.6	<1.4	<0.3	1.2	<1.4	<0.6	<0.3	<5.7
		9- 9-69	<1.4	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	8.0	<5.7	<0.3	<1.4	0.9	<0.3	1.4	<0.6	0.4	<5.7
ver, South Fork, near Miranda (7)	F64100.00	5-13-69	3.1	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	7.1	<5.7	<0.3	<1.4	<0.3	1.9	<1.4	<0.6	<0.3	<5.7
		----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
th River below Iron Gate Dam (1f)	F31600.00	5-12-69	183	<0.6	<0.3	<1.4	6.0	<1.4	<1.4	186	<5.7	<0.3	<1.4	2.4	1.4	<1.4	3.1	7.1	<5.7
		9-15-69	27	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	14	<5.7	<0.3	<1.4	0.3	2.9	<1.4	<0.6	4.6	<5.7
th River near Klamath (3)	F31100.00	5-13-69	86	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	31	<5.7	<0.6	<1.4	<0.3	3.1	<1.4	2.2	0.9	<5.7
		9- 9-69	<1.4	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	13	<5.7	<0.3	<1.4	<0.6	2.9	<1.4	<0.6	2.5	<5.7
th River at Orleans (2c)	F31220.01	----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		9- 8-69	<1.4	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	18	<5.7	<0.3	<1.4	<0.3	1.0	<1.4	<0.6	4.9	<5.7
th River near Seiad Valley (2b)	F31430.00	5-12-69	71	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	83	<5.7	<0.3	<1.4	<0.3	4.6	<1.4	3.1	2.2	<5.7
		9-16-69	23	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	7.4	<5.7	<0.3	<1.4	<0.3	2.1	<1.4	<0.6	4.0	<5.7
R ver near Arcata (6a)	F51100.00	5-13-69	4.9	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	17	<5.7	<0.3	<1.4	<0.3	<0.3	<1.4	<0.6	<0.3	<5.7
		9- 9-69	<1.4	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	11	<5.7	<0.3	<1.4	<0.7	<0.3	<1.4	<0.6	>0.3	<5.7
ty River near Hoopa (4)	F41090.00	5-12-69	31	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	15	<5.7	<0.3	<1.4	<0.3	1.1	<1.4	<0.6	<0.3	<5.7
		9- 8-69	<1.4	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	14	<5.7	<0.3	<1.4	<0.3	2.7	<1.4	<0.6	0.5	<5.7

ts are more than the amount indicated.

ts are less than the amount indicated.

CONSTITUENTS

Al - Aluminum
Be - Beryllium
Bi - Bismuth
Cd - Cadmium
Co - Cobalt
Cr - Chromium
Cu - Copper
Fe - Iron
Ga - Gallium
Ge - Germanium
Mn - Manganese
Mo - Molybdenum
Ni - Nickel
Pb - Lead
Ti - Titanium
V - Vanadium
Zn - Zinc

TABLE D-4

MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

NORTH COASTAL AREA

Station	Station Number	Date	Turbidity in Jackson Candle Units			PO_4 in mg/l	Other Constituents ** in mg/l
			Hellige	Hach	Jackson Candle		
Bear River near Capetown (7b)	F75100.00	10- 2-68					
		11-13-68					
		1-21-69	1400				
		5-13-69	5				As 0.00
		9- 9-69	0	0.24			As 0.00
Black Butte River near Covelo (5h)	F63200.00	10- 3-68	2			0.02	
		11-14-68	4			0.03	
		12- 4-68	2			0.00	
		2- 5-69	600			0.05	
		3- 5-69	100			0.03	
		4- 9-69	80			0.49	
		5-14-69	130			0.06	
		6-11-69	5			0.05	
		7-16-69	3			0.00#	
		8- 6-69	3	0.28		0.01#	
		9-10-69	5	0.43			
Eel River above Outlet Creek (5d)	F61329.50	10- 3-68	1			0.01	
		11-14-68	2			0.00	
		12- 4-68	2			0.40	
		1-22-69	1600			0.26	
		2- 5-69	340			0.18	
		3- 5-69	80			0.00	
		4- 9-69	35			0.09	
		5-14-69	15			0.03	As 0.00
		6-11-69	3			0.02	
		7-16-69	4	0.3		0.00#	
		8- 6-69	4	0.24		0.00#	
		9-10-69	0	0.11			As 0.00
Eel River at Scotia (6)	F61100.00	10- 2-68					Li 0.01 Fe 0.00 Sr 0.49
		11-13-68	270*				Li 0.01 Fe 0.10 Sr 0.33
		12- 3-68	10*			0.52	Li 0.01 Fe 0.06 Sr 0.20
		1-21-69	550*			0.28	Li 0.01 Fe 0.01 Sr 0.12
		2- 4-69	550*			0.10	Li 0.02 Fe 0.02 Sr 0.20
		3- 4-69	540*			0.23	Li 0.02 Fe 0.07 Sr 0.20
		4- 8-69	60*			0.06	Li 0.01 Fe 0.00 Sr 0.14
		5-13-69	95*			0.06	Li 0.01 Fe 0.02 Sr 0.21
		6-10-69	4*			0.03	Li 0.01 Fe 0.02 Sr 0.22
		7-15-69	2*			0.07	Li 0.01 Fe 0.01 Sr 0.34
		8- 5-69	1*	0.68		0.06	Li 0.00 Fe 0.01 Sr 0.51
		9- 9-69	1*	0.35		0.06	Li 0.01 Fe 0.00 Sr 0.5
Eel River at South Fork (5)	F61154.50	10- 2-68	2				
		11-13-68	35				
		12- 4-68	35				
		1-22-69	2700				
		2- 4-69	390				
		3- 4-69	380				
		4- 8-69	110				
		5-13-69	200				
		6-11-69	7				
		7-15-69	5				
		8- 5-69	4	0.34			
		9-10-69	2	0.14			
Eel River, Middle Fork, above Black Butte River (5g)	F63120.00	10- 3-68	0.9			0.01	
		11-14-68	4			0.03	
		12- 4-68	3			0.02	
		2- 5-69	70			0.08	
		3- 5-69	20			0.01	
		4- 9-69	25			0.11	
		5-14-69	180			0.08	As 0.01
		6-11-69	5			0.05	
		7-16-69	2	0.48		0.00#	
		8- 6-69	2	0.2		0.01#	
		9-10-69	1	0.17			As 0.00
Eel River, Middle Fork at Dos Rios (5c)	F63010.00	10- 3-68	2			0.00	
		11-14-68	6			0.06	
		12- 4-68	8			0.09	
		1-22-69	2300			0.06	
		2- 5-69	600			0.07	
		3- 5-69	210			0.00	
		4- 9-69	140			1.3	
		5-14-69	1400			0.03	As 0.00
		6-11-69	9			0.06	
		7-16-69	7	1.4		0.00#	
		8- 6-69	4	0.22		0.00#	
		9-10-69	0	0.08			As 0.00

* These values reported in ppm of Silica by the U. S. Geological Survey

** Li - Lithium, Sr - Strontium, Fe - Iron, As - Arsenic

\# PO_4 reported as (P) Phosphorus

TABLE D-4 (CONTINUED)

MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

NORTH COASTAL AREA

Station	Station Number	Date	Turbidity in Jackson Candle Units			PO_4 in mg/l	Other Constituents ** in mg/l
			Hellige	Hach	Jackson Candle		
1 River, South Fork near Miranda (7)	F64100.00	10- 2-68	2			0.05	
		11-13-68	40			0.16	
		12- 4-68	25			0.07	
		1-22-69	1800			0.26	
		2- 4-69	550			0.16	
		3- 4-69	390			0.06	
		4- 8-69	15			0.12	
		5-13-69	3			0.10	
		6-11-69	5			0.06	
		7-16-69	4			0.01#	
		8- 5-69	4	0.3		0.00#	
		9-10-69	5	0.20			
amath River above Hamburg Reservoir Site (1c)	F31470.00	11-13-68	6			0.64	
		1-20-69	160			0.48	
		3-10-69	35			0.44	
		5-12-69	25			0.68	
		7- 7-69	12	2		0.24#	
		9-16-69	35	2.4			
amath River at Orleans (2c)	F31220.01	9-30-68	2				
		11-11-68	10				
		12- 2-68	5				
		2- 3-69	95				
		3- 3-69	35				
		4- 7-69	100				
		5-12-69	120				
		6- 9-69	20				
		7-14-69	4	1.4			
		8- 4-69	10	2.1			
		9- 8-69	15	1.5			
amath River below Iron Gate Dam (1f)	F31600.00	10- 9-68	2			0.74	
		11-13-68	4			0.68	
		12-10-68	25			0.81	
		1-20-69	1000			0.69	
		2-17-69	25			0.57	
		3-10-69	25			0.53	
		4- 8-69	25			0.74	
		5-12-69	20			0.28	As 0.02
		6- 9-69	3			0.37	
		7- 7-69	9	2.5		0.31#	
		8-12-69	8	1.0		0.21#	
		9-15-69	6	1.6			As 0.00
amath River near Klamath (3)	F31100.00	10- 1-68					Li 0.01 Fe 0.00 Sr 0.15
		11-12-68	350*				Li 0.01 Fe 0.07 Sr 0.08
		12- 3-69	5*			0.06	Li 0.01 Fe 0.04 Sr 0.07
		1-20-69	200*			0.24	Li 0.01 Fe 0.01 Sr 0.07
		2- 3-69	44*			0.05	Li 0.02 Fe 0.04 Sr 0.10
		3- 3-69	150*			0.07	Li 0.02 Fe 0.01 Sr 0.11
		4- 8-69	90*			0.20	Li 0.01 Fe 0.02 Sr 0.04
		5-13-69	95*			0.15	Li 0.01 Fe 0.14 Sr 0.05
		6-10-69	30*			0.08	Li 0.01 Fe 0.06 Sr 0.05
		7-15-69	3*			0.14	Li 0.01 Fe 0.01 Sr 0.09
		8- 5-69	2*	1.4		0.13	Li 0.00 Fe 0.02 Sr 0.14
		9- 9-69	4*	0.35		0.28	Li 0.01 Fe 0.00 Sr 0.14
amath River near Seiad Valley (2b)	F31430.00	11-13-68	8			0.47	
		12-10-68	40			0.56	
		1-20-69	210			0.37	
		2-17-69	45			0.37	
		3-10-69	20			0.30	
		4- 8-69	40			0.94	
		5-12-69	90			1.1	As 0.00
		6- 9-69	45			0.26	
		7- 7-69	7	1.6		0.09#	
		8-12-69	10	0.8		0.13#	
		9-16-69	0	2.8			As 0.00
1 River near Arcata (6a)	F51100.00	10- 2-68	5				
		11-12-68	500				
		12- 3-68	55				
		1-20-69	3000				
		2- 3-69	300				
		3- 3-69	340				
		4- 7-69	120				
		5-13-69	140				
		6-10-69	5				
		7-15-69	8	6.6			
		8- 5-69	3	0.33			
		9- 9-69	50	8.1			

* These values reported in ppm of Silica by the U. S. Geological Survey

** Li - Lithium, Sr - Strontium, Fe - Iron, As - Arsenic

PO_4 reported as (P) Phosphorus

TABLE D-4 (CONTINUED)

MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

NORTH COASTAL AREA

Station	Station Number	Date	Turbidity in Jackson Candle Units			PO_4 in mg/l	Other Constituents ** in mg/l
			Hellige	Hach	Jackson Candle		
Mattole River near Petrolia (7a)	F71100.00	10- 2-68	2				
		11-13-68	80				
		1-21-69	2600				
		5-13-69	3				
		9- 9-69	5	0.35			
Mill Creek near Covelo (5e)	F63050.00	12- 4-68	3			0.10	
		1-22-69	400			0.03	
		2- 5-69	120			0.15	
		3- 5-69	45			0.04	
		4- 9-69	7			0.12	
		5-14-69	10			0.06	As 0.00
		6-11-69	4			0.10	
Outlet Creek near Longvale (5b)	F61350.00	10- 3-68	1				
		11-14-68	4				
		12- 4-68	15				
		1-22-69	340				
		2- 5-69	140				
		3- 5-69	25				
		4- 9-69	5				
		5-14-69	3				
		6-11-69	3				
		7-16-69	2				
		8- 6-69	8				
		9-10-69	15				
Redwood Creek at Orick (3b)	F55100.00	10- 1-68	1				
		11-12-68	790				
		12- 3-68	90				
		1-20-69	2400				
		2- 3-69	280				
		3- 3-69	550				
		4- 7-69	95				
		5-13-69	70				As 0.00
		6-10-69	5				
		7-15-69	4	0.7			
		8- 5-69	9	0.9			
		9- 9-69	1	1.3			As 0.00
Salmon River at Somesbar (2a)	F34100.00	5-12-69	120				
		9- 8-69	4	0.16			
Scott River near Fort Jones (1b)	F25250.00	10- 9-68	1				
		11-14-68	6				
		1-20-69	210				
		3-10-69	4				
		5-12-69	55				As 0.00
		7- 8-69	8				
		9-16-69	1				As 0.00
Shasta River near Yreka (1a)	F21050.00	10- 9-68	2				
		11-13-68	6				
		12-10-68	20				
		1-20-69	400				
		2-17-69	15				
		3-10-69	7				
		4- 8-69	30				
		5-13-69	15				As 0.01
		6- 9-69	7				
		7- 7-69	25	4			
		8-12-69	15				
		9-15-69	3	1.6			As 0.00
Smith River near Crescent City (3a)	F01300.00	10- 1-68	2				
		11-12-68	55				
		12- 3-68	20				
		1-21-69	290				
		2- 4-69	20				
		3- 3-69	10				
		4- 8-69	3				
		5-13-69	15				As 0.00
		6-10-69	3				
		7-15-69	4				
		8- 5-69	5				
		9- 9-69	1				As 0.00

** Li - Lithium, Sr - Strontium, Fe - Iron, As - Arsenic

TABLE D-4 (CONTINUED)

MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

NORTH COASTAL AREA

Station	Station Number	Date	Turbidity in Jackson Candle Units			PO_4 in mg/l	Other Constituents ** in mg/l
			Hellige	Hach	Jackson Candle		
Trinity River near Hoopa (4)	F41090.00	9-30-68	2			0.02	
		11-11-68	9			0.08	
		12- 2-68	30			0.07	
		2- 3-69	250			0.09	
		3- 3-69	190			0.04	
		4- 7-69	120			0.83	
		5-12-69	130			0.72	
		6- 9-69	30			0.20	
		7-14-69	4			0.00#	
		8- 4-69	4	0.33		0.00#	
		9- 8-69	5	0.4			
Trinity River at Lewiston (4a)	F41640.00	9-30-68	1			0.02	
		11-11-68	2			0.07	
		1-20-69	10			0.00	
		3- 3-69	10			0.00	
		5-12-69	4			0.07	
		7-14-69	4			0.00#	
		9- 8-69	8				
Trinity River near Burnt Ranch (4b)	F41376.00	11-11-68	3			0.02	
		1-20-69	190			0.05	
		3- 3-69	10			0.00	
		5-12-69	50			0.38	As 0.00
		7-14-69	4			0.00#	
		9- 8-69	1				As 0.00
Van Duzen River near Bridgeville (5a)	F65300.00	10- 1-68	2				
		11-12-68	140				
		12- 3-68	40				
		1-21-69	3200				
		2- 4-69	210				
		3- 4-69	130				
		4- 8-69	50				
		5-13-69	80				As 0.00
		6-10-69	3				
		7-15-69	1				
		8- 5-69	4	0.32			
		9- 9-69	1				As 0.00
Williams Creek near Covelo (5f)	F63105.00	10- 3-68	0.8			0.00	
		11-14-68	2			0.02	
		12- 4-68	2			0.04	
		1-22-69	380			0.05	
		2- 5-69	80			0.07	
		3- 5-69	25			0.00	
		4- 9-69	7			0.06	
		5-14-69	55			0.07	As 0.00
		6-11-69	45			0.19	
		7-16-69	4	0.38		0.01#	
		8- 6-69	4			0.02	
		9-10-69	1				As 0.00

Li - Lithium, Sr - Strontium, Fe - Iron, As - Arsenic
PO_4 reported as (P) Phosphorus

APPENDIX E

GROUND WATER QUALITY

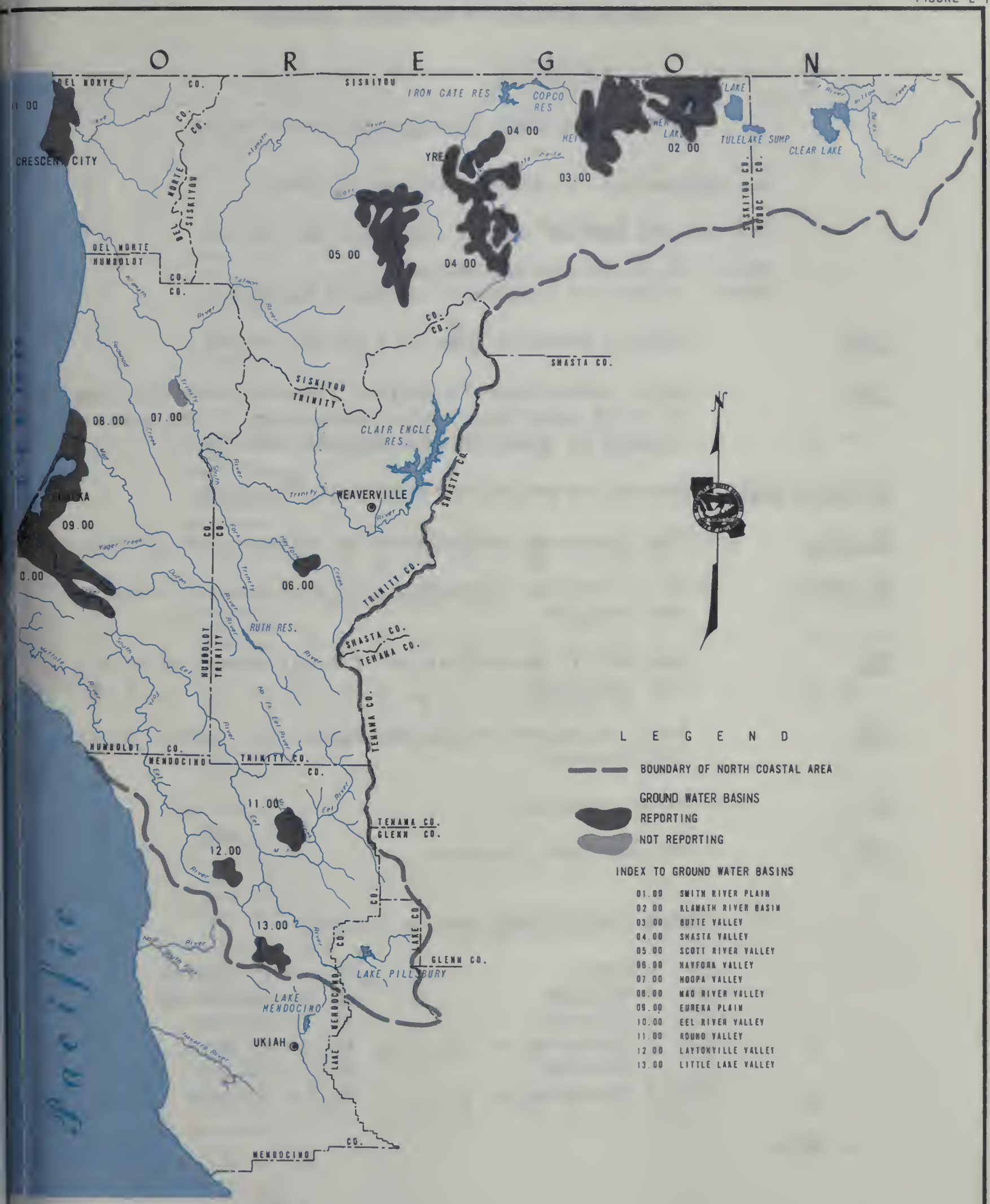
INTRODUCTION

This appendix presents ground water quality data collected during the period from October 1, 1968, through September 30, 1969. The data were collected from a number of major ground water sources in the North Coastal area in cooperation with local agencies. During the 1969 water year, 78 wells were sampled in 12 ground water basins.

At the time of field sampling, pH, specific conductance, and temperature measurements are normally made. Comments on local conditions are noted in field books which are available in the files of the Department of Water Resources.

Laboratory analyses of ground waters were performed in accordance with "Standard Methods for the Examination of Water and Waste Water", 12th Edition.

The Region and Basin and State Well Numbering Systems are described in Appendix C, "Ground Water Measurements".



L E G E N D

BOUNDARY OF NORTH COASTAL AREA

GROUND WATER BASINS
REPORTING
NOT REPORTING

INDEX TO GROUND WATER BASINS

01.00	SMITH RIVER PLAIN
02.00	KLAMATH RIVER BASIN
03.00	BUTTE VALLEY
04.00	SHASTA VALLEY
05.00	SCOTT RIVER VALLEY
06.00	HAYFORK VALLEY
07.00	HOOPA VALLEY
08.00	MAD RIVER VALLEY
09.00	EUREKA PLAIN
10.00	EEL RIVER VALLEY
11.00	ROUND VALLEY
12.00	LAYTONVILLE VALLEY
13.00	LITTLE LAKE VALLEY

GROUND WATER BASINS, WATER QUALITY SAMPLES

TABLE E-1 MINERAL ANALYSES OF GROUND WATER

An explanation of column headings follows:

The LAB and SAMPLER agency codes are as follows:

5000 - U. S. Geological Survey
5050 - California Department of Water Resources

TIME - Pacific Standard Time on a 24-hour clock.

TEMP - Water temperature in degrees Fahrenheit at the time of field sampling. Water temperature in degrees Celsius is computed from degrees Fahrenheit.

PH LAB & FIELD - Measure of acidity or alkalinity of water.

EC LAB - The electrical conductance in micromhos at 25° Celsius.

EC FIELD - The electrical conductance in micromhos at temperature when sampled.

TDS - Gravimetric determination of total dissolved solids at 180° Celsius.

SUM - Total dissolved solids determined by addition of analyze constituents.

TH - Total hardness.

NCH - Non-carbonate hardness.

The MINERAL CONSTITUENTS are as follows:

B	- Boron	K	- Potassium
CA	- Calcium	MG	- Magnesium
CL	- Chloride	NA	- Sodium
CO_3	- Carbonate	NO_3	- Nitrate
F	- Fluoride	SIO_2	- Silica
HCO_3	- Bicarbonate	SO_4	- Sulfate

TABLE E-1

MINERAL ANALYSIS OF GROUND WATER

MILLIGRAMS PER LITER
MILLIEQUIVALENTS PER LITER
PERCENT REACTANCE VALUE

DATE TIME	LAB SAMPLER	TEMP	PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN	CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	MILLIGRAMS PER LITER F	B	SIO2	TDS SUM	TH NCH
					SMITH RIVER PLAIN 1-1.00														
		16N/02W-13E01 M																	
08/28/69		59.0F	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
1300	5050	14.9C	6.1	355															
		17N/01W-02G01 M																	
08/28/69		58.0F	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
1205	5050	14.4C	6.1	115															
		17N/01W-04J01 M																	
08/29/69		57.0F	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
1000	5050	13.8C	7.1	285															
		17N/01W-14C02 M																	
08/28/69		67.0F	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
0915	5050	19.4C	6.5	178															
		18N/01W-05K01 M																	
08/27/69		63.0F	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
1320	5050	17.2C	6.0	182															
		18N/01W-17R04 M																	
08/27/69	5050	69.0F	7.7	270		18	16	15	0.4	0.0	134	1.6	18	0.3	--	0.0	--	162	110
1600	5050	20.5C	7.1	285		.90	1.32	.65	.01		2.20	.03	.51					135	0
						31	46	23			80	1	19						
		18N/01W-26M01 M																	
08/28/69		65.0F	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
1135	5050	18.3C	6.3	102															
		18N/01W-34M02 M																	
08/28/69	5050	64.0F	7.6	363		15	37	4.2	1.1	0.0	216	6.7	5.8	4.3	--	0.0	--	199	189
1030	5050	17.7C	7.0	370		.75	3.04	.18	.03		3.54	.14	.16	.07				180	12
						19	76	5	1		91	4	4	2					
					KLAMATH RIVER BASIN 1-2.00														
		46N/02E-15F01 M																	
08/08/69	5050	62.0F	7.4	155		8.7	5.5	13	2.0	0.0	56	9.7	7.7	3.6	--	0.2	--	147	44
1030	5050	16.6C	7.4	165		.43	.45	.57	.05		.92	.20	.22	.06				78	0
						29	30	38	3		66	14	16	4					
		47N/02E-20C01 M																	
08/08/69	5050	61.0F	7.0	1280		91	54	94	3.6	0.0	117	213	176	87	--	0.4	--	876	459
0835	5050	16.0C	6.9	1420		4.54	4.60	3.65	.09		1.92	4.43	4.96	1.40				768	363
						35	36	28	1		15	35	39	11					
					BUTTE VALLEY 1-3.00														
		45N/01E-09C02 M																	
08/08/69		59.0F	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
1140	5050	14.9C	7.7	180															
		45N/02W-01P01 M																	
08/08/69		55.0F	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
1210	5050	12.7C	6.5	215															
		46N/01W-02F01 M																	
08/07/69		59.0F	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
1530	5050	14.9C	8.2	405															
		46N/01W-17B01 M																	
08/07/69		56.0F	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
1645	5050	13.3C	8.2	365															
		46N/01W-17L01 M																	
08/07/69		56.0F	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
1630	5050	13.3C	7.5	480															
		46N/02W-16A02 M																	
08/08/69	5050	52.0F	8.0	174		13	9.4	8.7	2.0	0.0	106	0.5	1.8	0.9	--	0.0	--	125	71
1445	5050	11.1C	8.0	175		.65	.77	.38	.05		1.74	.01	.05	.01				88	0
						35	42	21	3		96	1	3	1					
		47N/01E-32A01 M																	
08/08/69	5050	70.0F	7.4	210		7.6	4.9	30	8.0	0.0	122	0.6	5.2	1.8	--	0.1	--	168	39
1305	5050	21.0C	7.9	218		.38	.40	1.31	.20		2.00	.01	.15	.03				118	0
						17	17	57	9		91		7	1					
		47N/01W-23H02 M																	
08/07/69		72.0F	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
1250	5050	22.2C	7.6	260															
		47N/02W-21H02 M																	
08/07/69		58.0F	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
1400	5050	14.4C	7.1	130															
		48N/01E-30F01 M																	
08/07/69		59.0F	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
1110	5050	14.9C	7.8	375															
		48N/01E-31D03 M																	
08/07/69		75.0F	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5050	23.8C	8.4	475															

TABLE E-1 (CONTINUED)

MINERAL ANALYSIS OF GROUND WATER

DATE TIME	LAB SAMPLER	TEMP	PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	MILLIGRAMS PER LITER: F	B	SIO2	TDS SUM	TH NCH
					BUTTE VALLEY 1-3.00 CONTINUED														
		48N/01W-28F01 M																	
08/07/69		84.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0930	5050	28.8C	9.1	200															
		48N/01W-28J01 M																	
08/07/69		63.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0900	5050	17.2C	7.7	395															
		48N/01W-36J01 M																	
08/06/69	5050	5? F	7.8	1330	27	81	169	28	0.0	845	54	26	8.?	--	0.3	--	809	401
1630	5050	1? C	7.3	1450	1.35	6.66	7.35	.72		13.86	1.12	.73	.13				808	0
					8	41	46	4		88	7	5	1					
					SHASTA VALLEY 1-4.00														
		42N/05W-20J01 M																	
08/25/69		66.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1130	5050	18.8C	6.8	320															
		42N/06W-10J01 M																	
08/25/69		63.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1250	5050	17.2C	7.3	590															
		43N/05W-02C01 M																	
08/25/69		57.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1610	5050	13.8C	6.5	248															
		43N/06W-21R01 M																	
08/25/69		61.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1345	5050	16.0C	7.3	490															
		44N/05W-32C02 M																	
08/25/69	5050	65.0F	7.9	1290	52	72	132	4.9	0.0	558	11	169	12	--	1.8	--	754	426
1515	5050	18.3C	7.3	1400	2.59	5.92	5.74	.13		9.15	.23	4.77	.19				728	0
					18	41	40	1		64	2	33	1					
		44N/05W-32C03 M																	
08/25/69	5050	64.0F	7.7	1060	56	69	92	4.1	0.0	563	16	96	3.6	--	1.1	--	649	424
1520	5050	17.7C	7.3	1130	2.79	5.67	4.00	.10		9.23	.33	2.71	.06				614	0
					22	45	32	1		75	3	22						
		44N/05W-34H01 M																	
08/25/69	5050	58.0F	7.5	693	52	35	50	7.1	0.0	379	18	32	8.1	--	0.5	--	468	273
1545	5050	14.4C	7.0	750	2.59	2.88	2.18	.18		6.22	.37	.90	.13				388	0
					33	37	28	2		82	5	12	2					
		44N/06W-22K01 M																	
08/25/69		69.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1430	5050	20.5C	7.0	475															
		45N/05W-06E01 M																	
08/26/69		65.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1600	5050	18.3C	8.2	1000															
		45N/05W-06Q01 M																	
05/19/69	5000	--	7.7	496	48	21	28	0.5	0.0	282	11	6.2	15	0.3	0.0	38	288	206
	5000				2.40	1.73	1.22	.01		4.62	.23	.17	.24				306	0
					45	32	23			88	4	3	5					
		45N/06W-12G01 M																	
05/20/69	5000	--	7.8	442	41	18	24	0.5	0.0	200	15	17	28	0.3	0.0	37	220	176
	5000				2.05	1.48	1.04	.01		3.28	.31	.48	.45				279	12
					45	32	23			73	7	11	10					
		45N/06W-19E01 M																	
08/26/69		67.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1500	5050	19.4C	7.5	355															
					SCOTT RIVER VALLEY 1-5.00														
		42N/09W-02G01 M																	
08/26/69		57.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1050	5050	13.8C	7.1	540															
		42N/09W-27K01 M																	
08/26/69		63.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1125	5050	17.2C	6.1	58															
		43N/09W-02G01 M																	
08/26/69		63.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0900	5050	17.2C	7.1	515															
		43N/09W-08F01 M																	
08/26/69	5050	64.0F	7.1	94	13	2.4	2.8	0.1	0.0	51	0.0	1.2	1.4	--	0.0	--	69	43
1315	5050	17.7C	6.3	95	.65	.21	.12			.84		.03	.03				46	1
					56	21	12			93		3	3					
		43N/09W-24F02 M																	
08/26/69	5050	57.0F	8.0	408	--	--	4.7	--	0.0	264	--	2.8	--	--	0.0	--	--	226
1005	5050	13.8C	7.1	415			.20			4.33		.08						10
							4			106		1						
		43N/09W-29G02 M																	
08/26/69		67.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1245	5050	19.4C	6.1	59															

TABLE E-1 (CONTINUED)

MINERAL ANALYSIS OF GROUND WATER

DATE TIME	LAB SAMPLER	TEMP	PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	MILLIGRAMS PER LITER TDS SUM	IN NCM
					SCOTT RIVER VALLEY 1-5.00 (CONTINUED)													
		43N/10W-11E01 M																
08/26/69	5050	55.0F	7.4	100	6.4	8.8	0.5	0.1	0.0	63	0.0	1.2	0.3	--	0.0	--	61	52
1340	5050	12.7C	6.6	107	.32	.72	.02			1.03		.03					48	1
					30	68	2			97		3						
		44N/09W-34R01 M																
08/26/69	5050	67.0F	--	321	--	--	--	--	--	--	--	--	14	--	--	--	--	158
0930	5050	19.4C	6.8	325									.23					
													7					
					HAYFORK VALLEY 1-6.00													
		31N/12W-12L01 M																
09/23/69		63.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1100	5050	17.2C	6.1	170														
		31N/12W-15K01 M																
09/23/69		63.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1130	5050	17.2C	6.3	215														
					MAD RIVER VALLEY 1-8.00													
		05N/01E-04H04 M																
09/08/69		63.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1600	5050	17.2C	7.9	458														
		06N/01E-07H01 M																
09/08/69	5050	65.0F	7.5	484	37	34	18	2.6	0.0	287	2.0	23	1.3	--	0.1	--	223	230
1315	5050	18.3C	6.5	575	1.85	2.79	.78	.07		4.71	.04	.65	.02				259	0
					34	51	14	1		87	1	12						
		06N/01E-17D01 M																
09/09/69		57.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1245	5050	13.8C	6.5	435														
		06N/01E-32F01 M																
09/08/69	5050	74.0F	--	711	--	--	120	--	--	--	--	--	--	--	--	--	--	82
1315	5050	23.3C	7.7	725			5.22											82
							73											
		06N/01W-01H01 M																
09/08/69		67.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1345	5050	19.4C	6.4	185														
					EUREKA PLAIN 1-9.00													
		04N/01W-08P01 M																
09/09/69		55.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0840	5050	12.7C	7.5	160														
		04N/01W-16H01 M																
09/09/69	5050	58.0F	--	482	--	--	27	--	--	--	--	--	--	--	--	--	--	184
0825	5050	14.4C	7.5	495			1.17											184
							24											
		04N/01W-17B01 M																
09/09/69	5050	55.0F	--	168	--	--	10	--	--	--	--	--	--	--	--	--	--	55
0900	5050	12.7C	6.8	165			.44											55
							26											
		05N/01E-18Q01 M																
09/08/69		67.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1535	5050	19.4C	7.3	840														
		05N/01W-29Q01 M																
09/08/69	5050	63.0F	--	305	--	--	21	--	--	--	--	--	4.0	--	--	--	--	86
1415	5050	17.2C	6.5	315			.91						.64					86
							29						20					
					EEL RIVER VALLEY 1-10.00													
		02N/01W-04D01 M																
09/09/69		58.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1730	5050	14.4C	7.0	575														
		02N/01W-07F01 M																
09/09/69	5050	57.0F	7.8	518	73	20	10	3.1	0.0	282	36	7.4	20	--	0.1	--	239	266
1555	5050	13.8C	7.3	500	3.64	1.64	.44	.08		4.62	.75	.21	.32				308	35
					63	29	8	1		78	13	4	5					
		02N/01W-12D04 M																
09/09/69		63.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1310	5050	17.2C	7.5	165														
		03N/01W-05K01 M																
09/09/69		59.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1015	5050	14.9C	6.3	148														

TABLE E-1 (CONTINUED)

MINERAL ANALYSIS OF GROUND WATER

DATE TIME	LAB SAMPLE#	TEMP	PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	MILLIGRAMS PER LITER TDS SUM	TH NCH
					EEL RIVER VALLEY 1-10.00 CONTINUED													
		03N/01W-18A01 M																
09/09/69	5050	63.0F	7.6	416	25	30	20	2.1	0.0	227	20	14	5.1	--	0.0	--	214	184
1020	5050	17.2C	7.0	420	1.25	2.47	.87	.05		3.72	.42	.39	.08				227	0
					27	53	19	1		81	9	8	2					
		03N/01W-30N01 M																
09/09/69	5050	58.0F	7.3	540	54	28	11	1.9	0.0	288	32	14	14	--	0.1	--	282	274
1300	5050	14.4C	6.4	580	3.19	2.30	.48	.05		4.72	.67	.39	.26				308	38
					53	38	8	1		78	11	6	4					
		03N/02W-13J01 M																
09/09/69	5050	58.0F	7.0	5630	274	328	373	9.6	0.0	183	139	1820	2.9	--	0.1	--	3900	2030
1045	5050	14.4C	6.8	5600	13.67	26.96	16.23	.25		3.00	2.89	51.32	.05				3036	1882
					24	47	28			5	5	90						
		03N/02W-32Q01 M																
09/09/69	5050	57.0F	5.9	901	25	27	100	3.0	0.0	3.0	0.0	271	0.0	--	0.0	--	538	172
1450	5050	13.8C	7.1	920	1.25	2.22	4.35	.08		.05		7.64					427	170
					16	28	55	1		1		99						
		03N/02W-35M01 M																
09/09/69	5050	58.0F	7.5	849	29	37	97	11	0.0	307	35	106	6.0	--	0.1	--	456	224
1330	5050	14.4C	7.1	890	1.45	3.04	4.22	.28		5.03	.73	2.99	.10				472	0
					16	34	47	3		57	8	34	1					
		ROUND VALLEY 1-11.00																
		22N/12W-06L02 M																
09/10/69		63.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1430	5050	17.2C	7.2	460														
		22N/12W-19F01 M																
09/10/69		63.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1700	5050	17.2C	7.1	545														
		22N/13W-01J03 M																
09/10/69	5050	72.0F	--	221	--	--	8.3	--	--	--	--	--	--	--	--	--	--	92
1400	5050	22.2C	7.3	225			.36											
							16											
		22N/13W-12K01 M																
09/10/69	5050	66.0F	7.3	283	20	17	15	0.8	0.0	147	20	6.0	0.9	--	0.1	--	154	121
1645	5050	15.5C	7.0	320	1.00	1.40	.65	.02		2.41	.42	.17	.01				152	1
					33	46	21	1		80	14	6						
		22N/13W-13A01 M																
09/10/69	5050	79.0F	8.0	180	13	8.1	12	0.9	0.0	98	2.1	7.4	0.0	--	0.1	--	56	67
1500	5050	26.0C	7.9	190	.65	.67	.52	.02		1.61	.04	.21					92	0
					35	36	28	1		87	2	11						
		23N/12W-33L03 M																
09/10/69		70.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1415	5050	21.0C	7.3	645														
		23N/13W-25P01 M																
09/10/69		62.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1330	5050	16.6C	7.3	260														
		23N/13W-36P03 M																
09/10/69		68.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1350	5050	19.9C	6.8	260														
		LAYTONVILLE VALLEY 1-12.00																
		21N/14W-30M01 M																
09/10/69		62.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1030	5050	16.6C	7.0	215														
		21N/15W-01L02 M																
09/10/69		67.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1040	5050	19.4C	7.3	430														
		21N/15W-12M02 M																
09/10/69		60.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1100	5050	15.5C	5.7	78														
		LITTLE LAKE VALLEY 1-13.00																
		18N/13W-08L01 M																
09/11/69	5050	65.0F	7.3	235	12	14	16	1.4	0.0	116	8.6	7.4	5.1	--	0.2	--	110	90
0745	5050	18.3C	6.3	218	.60	1.15	.70	.04		1.90	.18	.21	.08				122	0
					24	46	28	2		80	8	9	3					
		18N/13W-20M03 M																
09/11/69		59.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0830	5050	14.9C	6.3	195														

TABLE E-2

TRACE ELEMENT ANALYSES OF GROUND WATER

NORTH COASTAL AREA

State Well Number	Date	Constituents in parts per million							
		As	Cd	Cu	Fe (Total)	Pb	Mn	Se	Zn
KLAMATH RIVER BASIN (1-2.00)									
46N-2E-15F1	8-8-69	0.00							
BUTTE VALLEY (1-3.00)									
48N-1E-31D3	8-7-69	0.00							
48N-1W-36J1	8-6-69	0.02							
SHASTA VALLEY (1-4.00)									
43N-6W-21R1	8-25-69	0.00							
45N-5W-6Q1	5-19-69				0.04				
45N-6W-12G1	5-20-69				0.04				
SCOTT RIVER VALLEY (1-5.00)									
43N-9W-2G1	8-26-69	0.00	0.00	0.00	0.09	0.02	0.00	0.00	0.48
44N-9W-34R1	8-26-69	0.00	0.00	0.00	0.03	0.01	0.00	0.00	0.80
MAD RIVER VALLEY (1-8.00)									
6N-1E-17D1	9-9-69	0.00	0.00	0.00	9.0	0.00	0.00	0.00	0.03
EUREKA PLAIN (1-9.00)									
5N-1E-18Q1	9-8-69	0.01	0.00	0.00	0.49	0.01	0.00	0.00	0.05
EEL RIVER VALLEY (1-10.00)									
3N-1W-18A1	9-9-69	0.00	0.02	0.00	0.08	0.00	0.00	0.00	0.01
3N-2W-32Q1	9-9-69	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.01
ROUND VALLEY (1-11.00)									
22N-13W-12K1	9-10-69	0.01							
LAYTONVILLE VALLEY (1-12.00)									
21N-14W-30M1	9-10-69	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.11
LITTLE LAKE VALLEY (1-13.00)									
18N-3W-20H3	9-11-69	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.03

CONSTITUENTS

As	Arsenic	Fe	Iron	Se	Selenium
Cd	Cadmium	Pb	Lead	Zn	Zinc
Cu	Copper	Mn	Manganese		

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